# THE PREHISTORY OF THE GREEK DIALECTS

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## I

Those interested in the interrelationship and development of the Greek dialects are confronted with two facts of cardinal importance. The first fact is that Greek was one language, one linguistic system, intelligible to all who called themselves *Ἕλληνες* regardless of how it

* The works to which I have most frequently referred in this paper are: C. D. **Buck**, *The Greek Dialects* (Chicago, 1955); R. **Coleman**, "The Dialect Geography of Ancient Greece," *Transactions of the Philological Society* 1963: 58–126; E. **Risch**, "Die Gliederung der griechischen Dialekte in neuer Sicht," *Museum Helveticum* 12 (1955) 61–76 (reprinted in G. S. Kirk, Ed., *The Language and Background of Homer* 90–105 [Cambridge 1964]). References to these works preceded by a # refer to their tables of dialect features (Buck facing page 374, Coleman 107–13, Risch 75): all other references are to page number. Other important works on the dialects include: J. **Chadwick 1963**, "The Prehistory of the Greek Language," *Cambridge Ancient History* 2.39 (1963); **Chadwick 1956**, "The Greek Dialects and Greek Prehistory," *Greece and Rome* N.S. 3 (1956) 38–50 (reprinted in Kirk 106–18); W. **Porzig**, "Sprachgeographische Untersuchungen zu den altgriechischen Dialekten", *Indogermanische Forschungen* 61 (1954) 147–69. For general information on the dialects: F. **Bechtel**, *Die Griechischen Dialekte*, 3 vols., (Berlin 1921–1924); **Thumb-Scherer**, A. Thumb, *Handbuch der griechischen Dialekte*, Vol. 2, revised by A. Scherer (Heidelberg, 1959). I have in general cited inscriptions after E. **Schwyzer 1923**, *Dialectorum Graecarum Exempla Epigraphica Potiora* (Leipzig 1923); **IG**, *Inscriptiones Graecae*; **SGDI**, H. Collitz and F. Bechtel, *Sammlung der griechischen Dialekt-Inschriften* (Göttingen 1884–1915); Lesbian lyric texts are after **PLF**, E. Lobel and D. Page (Eds.), *Poetarum Lesbiorum Fragmenta* (Oxford 1955). For grammars, I have referred to E. **Schwyzer 1939**, *Griechische Grammatik* Vol. I (*Handbuch der Altertumswissenschaft* II.1.1, Munich 1939) for classical Greek and to **Docs.**, M. Ventris and J. Chadwick, *Documents in Mycenaean Greek* (Cambridge 1956) and E. **Vilborg**, *A Tentative Grammar of Mycenaean Greek* (*Studia Graeca et Latina Gothoburgensia* 9, [Göteborg 1960]) for Mycenaean Greek. H. **Frisk** refers to *Griechisches Etymologisches Wörterbuch* (Heidelberg 1960–), and P. **Chantraine 1968** to *Dictionnaire étymologique de la langue grecque* (Paris 1968–). I have also had occasion to refer to some other works of mine: **Wyatt 1964**, "Arcado-Cypriote *κάς*," *Glotta* 42 (1964) 170–82; **Wyatt 1971**, *The Greek Prothetic Vowel*, to be published as a monograph by the American Philological Association; **Wyatt 1971a**, "Sonant /r/ and Greek Dialectology," to appear in *Studi micenei ed egeo-anatolici*.

was pronounced in the mouths of Athenians, Laconians, Thessalians or Cretans; and regardless of whether one Greek used *-μεν*, another *-μες* in the first person plural active of the verb; or whether for "take" one said *αἱρέω*, another *ἀγρέω*. The second fact is that different brands or varieties of Greek were spoken in various geographically circumscribable *localities* and not randomly in various areas or within the same area either by one and the same person or by members of different strata of society. Each dialect differs, sometimes only imperceptibly, from its neighbor, and it is from the various *local* forms of Greek that we form our first impressions concerning the interrelationship of the dialects. We have no reason to suppose that earlier stages of the language differed from later in this regard: dialectal differences probably were always local and slight.

From the first of these facts we derive our first hypothesis: all attested forms of Greek (G) derive from an earlier, non-attested form of G which we are in the habit of labeling proto-Greek (PG). This language may or may not have been dialectally uniform—it probably was not—but we must assume that whatever dialectal variations were to be found within it arose within it, that is, in Greece, and were not imported into Greece by speakers of a later form of Proto-Indo-European (PIE).[1] We must be very clear about this and not imagine, as older generations of scholars were sometimes tempted to do, a series of Indo-European (IE) incursions into Greece: the Greek dialects arose on the soil of Greece (Chadwick 1963: 10–17). Since we are forced to assume and reconstruct a PG, we have no reason or right to suppose, as some have, that G arose as an amalgam of unrelated or only distantly related languages.[2]

[1] A corollary to this observation is that we must in our reconstructions be careful to reconstruct PG and not PIE. Thus we want to reconstruct **hepta* "seven" for PG and not **septm*; and **pansa* "each," not **pantya*; and (probably) **totsos* "so much" from PIE **totyos*. On this last cf. my article "Greek Names in *-σσος/ττος-*" (*Glotta* 46 [1968] 8–14) in which I try to show that PG already had both **totsos* and **petsō* "I cook," and hence that **ty* and **k*$^{(w)}$*y* had experienced palatalization before the Greeks arrived in Greece. That is, the ancestor of Greek was a dialectally distinct variety of PIE before its arrival in what was later to become its home. We may refer, proleptically, to this linguistic system as the Hellenic dialect of PIE, or more simply Hellenic PIE.

[2] Such an amalgam, and the possibility that languages can arise from disparate sources, is not usually assumed in modern linguistics. Nonetheless the Italian school, particularly V. Pisani, has argued along these lines. Cf. Pisani in *RhM* 98 (1955) 1–16 (= *Saggi di*

The second fact causes us to hypothesize, and this is only an hypothesis, that the various G dialects developed, not only in Greece, but on the very spot in which they were spoken in classical times. That is to say, a more or less uniform PG developed local variants, some of which extended their influence to neighboring areas and which in time resulted in the attested dialectal diversity. We can derive informal support for this hypothesis from the fact that Coleman's map (125) shows that in terms of a mere weighting of dialectal features linguistically similar dialects tend also to be geographically close as well. We shall of course have to make several obvious exceptions: Dorian speech is clearly a relatively recent event in the Peloponnese, and the Dorians must be removed to the north of the Gulf of Corinth during the early stages of dialectal development and cannot at that time have been contiguous to Arcadian; Boeotians may not always have been in Boeotia; Cypriotes may have developed certain linguistic traits while still resident on the mainland; Lesbians may have innovated linguistically somewhere in Northeast Greece rather than on the island of Lesbos; and Ionians may not have developed all their linguistic traits in the Cyclades and on the coast of Asia Minor. We know, however, that the sea in antiquity united rather than divided, so these last population shifts—if such they were—however important to the people involved, may have been dialectally insignificant. To be on the safe side, though, it is best to rephrase our original statement and to assume that the geographical relation of the G dialects to each other was much the same in classical times as it was in pre-Mycenaean antiquity, whether or not the dialects at that time were spoken in their classical locations. There is no need, though there is in general no linguistic harm in so doing, to assume prehistoric migrations of Greeks within Greece.

The usual question one asks in G dialectology is: how did G split into the attested dialects, and which dialects are more closely related to one another? In other words, how do we go about constructing a family tree like that given in Chadwick (1956: 40), which shows a split first into East vs. West Greek, then "Achaean" vs. Attic-Ionic, etc? The usual method of answering these questions is to make a list

*linguistica storica* 181–98 [Turin 1959]) and *PP* 14 (1959) 81–86; and V. Gusmani, *Glotta* 44 (1966) 19–25.

of features like that in Risch (75) or Coleman (107–13) and see which dialects share which features. Those dialects with the most features in common will be more closely related. This method, which, incidentally, I have given in unfairly simplified form, encounters grave difficulties. Lesbian (L), an Aeolic (Ae) dialect, shares with Attic-Ionic (AI) the assibilation of *-*ti* in L φέροισι, I φέρουσι, but with Boeotian (B) and Thessalian (T) the labialization of *$k^w$ before /e/ as in πέμπε < *$penk^we$. With which dialect is L more closely related? Or again, Cypriote (C) an Arcado-Cypriote (ArC) dialect, though ordinarily showing the same changes as Arcadian (e.g., κάς for καί), shares with the Ae dialects the labialization of *$k^w$ before /e/ (πείσει instead of τείσει—Schwyzer 1923 : 679.12). Does C belong with Ar or with Ae? The answer of course is that in this one feature C belongs with Ae, and similarly that L is closer to AI than to T and B in the assibilation of *-*ti*, but to Ae and C in the labialization of *$k^w$-. The traditional method of looking at dialectal relations, though, does not allow for similarity in one feature only, but demands that dialects split irrevocably. If one dialect, say L, shows non-Ae characteristics, then one is forced to assume influence of neighboring dialects, as Risch (71) for instance does when he attributes L *-*ti* > -*si* to I influence.

Such an assumption is in general unrealistic and unnecessary, and simply points out the deficiencies of the traditional approach to the problem. Dialects are merely collections of features, some shared with other dialects, others not, and to refer, e.g., to I, is to indulge in a shorthand way of saying: that form of G which shows $\bar{a} > \eta$ even after ε ι ρ; in which the number "four" is τέσσερες; in which *-*ti* develops to -*si*, etc. Of these the first feature happens to occur only in I, the second also in Ar, the third also in ArC, A, L. Hence we should not ask how the dialects developed, but rather how the features which define the dialects arose. And if we want to know how the dialects arose, we must first ascertain what innovative features are shared by what dialects and in what temporal sequence they arose. In other words we wish to establish those isoglosses (features) which divided the originally uniform G language into its many historically attested dialects. Since dialects are identified by bundles of isoglosses, our task is to determine how the various isoglosses developed such that dialects resulted. In this search only shared linguistic innovations can, though

they need not, have evidential value. Shared retention of an archaism is no evidence whatsoever.

From all that I have said thus far, it is clear that I propose to replace the *Stammbaum* (family tree) model of G dialectology in favor of the *Wellentheorie* (wave theory) of linguistic diversification first proposed by J. Schmidt in 1872 (*Die Verwandtschaftsverhältnisse der indogermanischen Sprachen*, Weimar). According to this theory a linguistic innovation, whatever it may be, usually originates in a given area of a speech community, and if that area is linguistically prestigious, the innovation is likely to spread to other contiguous areas until it either embraces the entire speech community or meets resistance, linguistic and/or geographic, in an (several) area(s) and ceases to spread. Numerous cases of this phenomenon are documented in the linguistic literature. Familiar and accessible examples (from Bloomfield's *Language*) include (322): Eng. *vixen* beside *fox*. It is clear that *fox* directly continues the Old English form and that *vixen* does not. Somehow *vixen* made its way into standard English from a dialect in which /f/ regularly passed to /v/: *fox* was unaffected. Perhaps a better example is that of Netherlands "house" and "mouse" from early Germanic [hu:s] [mu:s] (Bloomfield 328–31). There are three dialectal areas, in two of which the words are pronounced the same, while in the third they are pronounced differently (I have simplified the data):

| | | |
|---|---|---|
| western | [my:s] | [hy:s] |
| central | [mu:s] | [hy:s] |
| eastern | [mu:s] | [hu:s] |

The innovation clearly consists in fronting the back vowel and, according to Bloomfield, may have originated in Flanders. It succeeded in embracing all of western Holland and Belgium, but in a central area affected only older [hu:s]. It did not reach the eastern regions at all, and the earlier stage of the language was there preserved.[3] I do not, in adopting the wave-theory model of linguistic change, wish to deny that changes may affect one branch alone— the Boeotian vowel system (Buck 153–54) is sufficient to disprove such an

[3] For discussion of the "Wellentheorie" cf. Porzig 1950: 23–27 (W. Porzig, *Die Gliederung des indogermanisches Sprachgebiets*, Heidelberg), Lehmann 140–41 (W. Lehmann, *Historical Linguistics: an Introduction* [New York 1962]), Pedersen 314–18 (H. Pedersen, *Linguistic Science in the Nineteenth Century* [trans. J. W. Spargo, Cambridge 1931], Bloomfield 311–19 (L. Bloomfield, *Language* [New York 1933]). And for

assertion—, but I do feel that within one rather small linguistic community such as was ancient Greece,[4] it is highly likely that a change originating in perhaps one small locale will spread to neighboring areas as well and perhaps to the whole Greek world.[5]

To take up again one of the isoglosses already mentioned: **-ti* > *-si*.

dialect geography in general: Bloomfield 321–45, Lehmann 115–35, Hockett 471–84 (C. Hockett, *A Course in Modern Linguistics* [New York 1958]).

[4] There should be no need to argue that Greece was a single linguistic community. Nonetheless linguistic discussions seem to assume often enough that Greeks of different areas and different dialects did not converse with mutual understanding and enjoyment that evidence for Hellenic linguistic unity might well be adduced here. The two most important bits of evidence are: 1) the Greek dialects, however widely and wildly they may diverge in pronunciation and morphology, are very similar in the deeper level of language, namely in syntax (Buck 136); 2) similarly in matters of vocabulary, one of the more unstable areas of language, Greek was uniform to a very high degree. These two factors ensured mutual intelligibility between any two Greek speakers. On a non-linguistic level we may point to the fact that, at least from 776, the Greeks—all Greeks—indulged in athletic and artistic contests: eristic was one aspect of the Greek way. Greeks generally carried on these contests at pan-Hellenic shrines such as Delphi and Olympia to which all Greeks could go. Alliances between Greek states, though perhaps the exception rather than the rule, do at least argue for Hellenic unity. Finally, and perhaps most importantly, the Greeks thought of themselves as a single people as opposed to the *βάρβαροι*, as is proved by the popularity of the Homeric poems and perhaps most impressively by the genealogical bit in Hesiod *Fr.* 9 (Merkelbach and West):

*Ἕλληνος δ' ἐγένοντο φιλοπτολέμου βασιλῆος*
*Δωρός τε Ξοῦθός τε καὶ Αἴολος ἱππιοχάρμης*

[5] Examples of diffusion and purely areal extension of linguistic innovations are frequent within the ancient Greek dialectal world. The following—convincing probably in varying degrees—may serve as examples. Phonology: 1) in a geographically but not dialectally isolable area (Attic, W. Ionic, Phocian, Arcadian, Locrian, Megarian plus Rhodian and Theran) /rs/ was assimilated to /rr/ (Coleman 67–68); 2) palatalized *λ* (Buck 64) occurs only in island D dialects (Coan, Melian, Thasian) plus Asia Minor Cnidian: the change probably originated in Cos or Cnidos; 3) *λτ* and *λϑ* pass to *ντ* and *νϑ* only in D dialects and Ar (Buck 64–65); 4) [tš] (< **ty *ky *tw*) develops a stop articulation only in A B and Euboean I; 5) *-ωι* > *-οι* in much the same area as that in which *λτ λϑ* > *ντ νϑ*, i.e., in Ar B Elean, and in general, in northern dialects (Buck 88) this is in part the area in which *σϑ* > *στ* (Buck 72). Morphology: 1) only in the Dodecanese hexapolis (and Sicily) was the perfect indicative inflected thematically (Buck 118); 2) somewhat the same area, but this time including Thera and Central Crete, is embraced by the active inflection of the future passive (Buck 117); 3) the middle participle of *-έω* verb ends in *-είμενος* (*-ήμενος*) only in Northwest Greek and B (Buck 124). Syntax: 1) *ἐπί* plus dative with names of the dead occurs only in Phocian, Locrian, B and L (Buck 109); 2) *παρά* with the accusative instead of the dative, occasional elsewhere, occurs regularly in Northwest Greek and T, B (Buck 108–9). Onomasticon: 1) personal names with first element in *τιμα-* (*τιμη-*) occur only in I, Cnidian, Rhodian (Buck 133); 2) names in *-κλέας* (*-κλίας*) appear in T, B, Locrian, Phocian, Aetolian, Megarian. In all of these cases areas rather than dialects are involved.

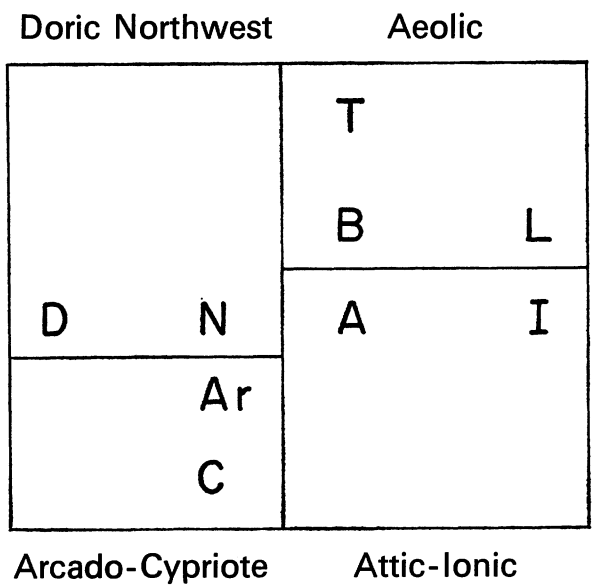
It is quite clear that *-si* is the later form, for we know both from other G dialects and from comparison with other IE languages, that the mark of the third person in the verb of primary tenses was **-ti*. Hence *-si* is an innovation. It is also clear that this innovation affected Cyprus, the pre-Dorian Peloponnese, Attica, and the Asia Minor coast. It is not certain that it affected all these areas at the same time, but the most reasonable hypothesis is that it did. If so, L speech was already localized on Lesbos when this change took place, and that, from the evidence of Mycenaean, must have been before 1200.[6] We should like in all cases to be able to be as precise as this, but we cannot. Ideally our goal should be to provide a relative chronology of changes showing step by step how the Greek world split up dialectally. We will fall somewhat short of that goal.

We can approach it, though. In what follows I shall assume that linguistic changes occur, for whatever reason, in a given geographically restricted locale and then tend to spread from there to neighboring areas. I shall not, therefore, demand that all Ae dialects share all and only Ae changes, Doric (D) dialects share all and only D changes. There will be many cases of overlap from one area to another, though probably not, except in the case of archaisms, of noncontiguous areas with one another. Our task will be to determine what happened (e.g., assibilation of **-ti*); where it happened (Peloponnese, etc.); when it happened (after settlement of Asia Minor?); and, if possible, how it happened (probably [ti] > [tˢi] > [si]). This particular instance is straightforward and easy to follow. In other cases it may not be clear which is the innovation, usually because of our ignorance of what the PG form was. One such (relatively unimportant) case is that of AI *ὄνομα* vs. *ὄνυμα* of (apparently all—Buck 27, Coleman 74) other dialects. The PIE nominative of this word was **nomn*, and as a result the AI form is generally held to preserve the original vocalism, while all other dialects have raised /o/ to /u/. But in fact, AI has innovated in this matter and has assimilated the quality of the second vowel to that of the first. This is proved by two facts. 1) In compounds *-ωνυμος* remains even in AI, thus indicating that *ὄνυμα* developed to *ὄνομα*

[6] Unless indeed the change was inaugurated in the Peloponnese and later spread to AI L. It is possible, but perhaps not likely, that substratum influence was at work here. See below.

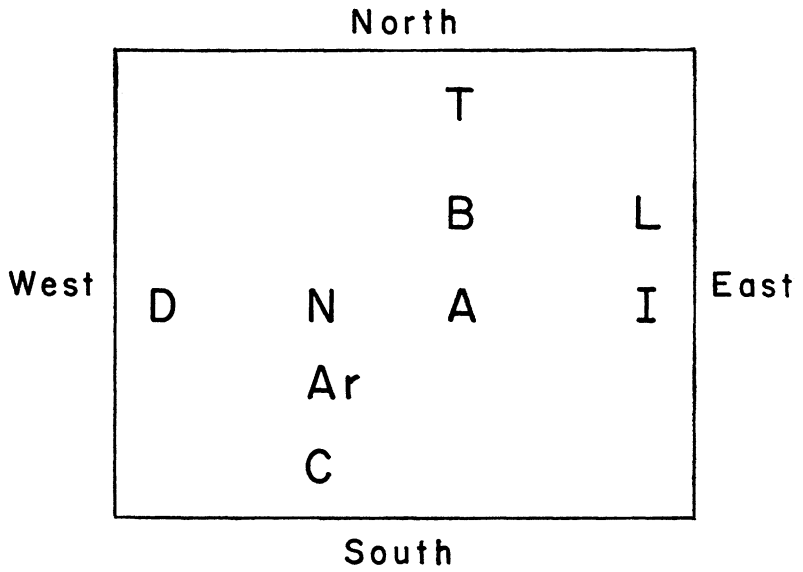
in the free form: if AI preserved the original quality of *ὄνομα*, we would be hard put to explain the /u/ of *-ωνυμος*. 2) The quality of the prothetic vowel in this word is explicable only on the assumption that original /a/ was rounded to /o/ by a following /u/: sc. **anuma* > **onuma* (Wyatt 1971): the PG form of this word was **onuma*.

It will be helpful, in some cases at least, to have a map on which the changes may be plotted in order to show the area and extent of the various linguistic changes.[7] The map need not be accurate in every detail, and indeed can be highly schematic, provided only that it place the various local forms of G (more or less) in their actually attested pre-Dorian domain. I slight the D and Northwest (N) dialects, as is commonly done, by grouping them together and considering them coordinate with T, B, A, etc. Though there are numerous interesting innovations and developments in these dialects, they must remain out of consideration, for they are for the most part late, or are restricted to DN, and hence are of no importance for dialectal history. The map, including the traditional dialectal groupings, will show:




[7] This has been my procedure in working on this paper, using Coleman's list (107–13) of fifty-one changes as a basis and adding to it from Buck's Grammar of the Dialects (3–140).

On this drawing I have enclosed the map in order to indicate that, though doubtless influenced from the outside, Greek was a single entity. Such a traditional map will serve, but it would be better and more accurate, while keeping the outline of the map, to omit the intersecting lines, and, instead of dialectal designations, to introduce directional coordinates:

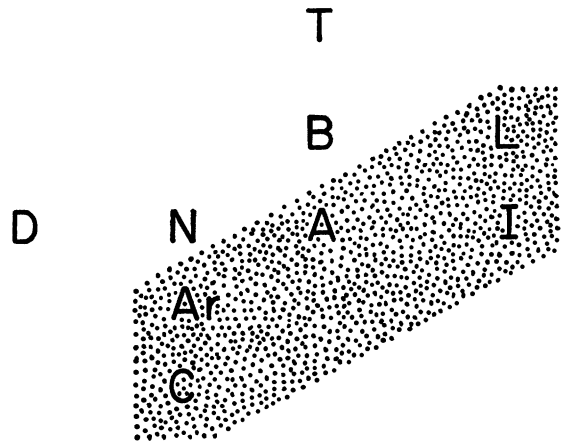



Thus Ae becomes Northeast Greek (NEG), AI becomes Southeast Greek (SEG), etc. Earlier changes, at least, will be shown by shading those areas affected by an innovation: later, post-Dorian, changes, involving individual D and N dialects, will have to be drawn on actual representations of Greece in the classical period. My procedure will be to list the various isoglosses, try to determine where the innovation lay, and to draw what I hope are the proper dialectological inferences. It will be most convenient first to take some of the more important of Risch's twenty isoglosses and see what conclusions emerge. We can then treat of other isoglosses in terms of the frame by then established. In so doing it is important constantly to bear in mind that the establishment of an isogloss, i.e., a linguistic innovation, does

not preclude communication and common linguistic innovation among people divided only by that isogloss: they still all spoke the same language.

1) *-*ti* > *-*si* (Coleman #10, Buck #1)

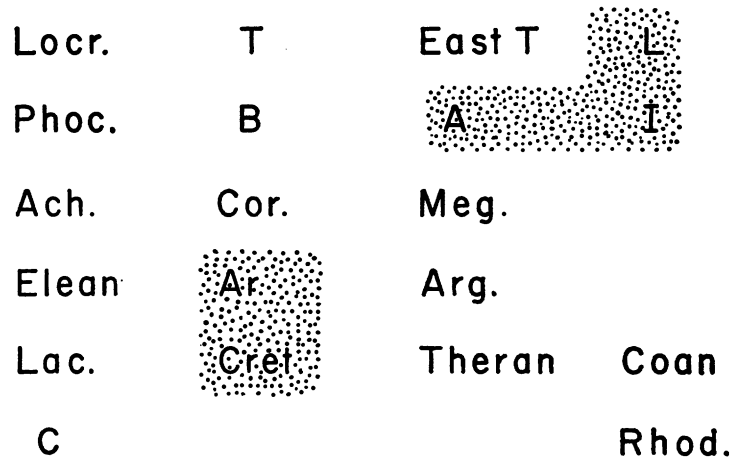
This innovation, shared by ArC, AI and L, and thus restricted to the southern and eastern parts of the Greek world, failed to affect DN, T and B, generally speaking the northern dialects. The change may be due to the influence of a substrate language (cf. Hittite -*zi* for -*ti*: Coleman 70), and if so, is irrelevant for dialectological purposes. We shall see later, though, that an innovating area embracing ArC, AI and L is reinforced by numerous other isoglosses. If it is a common innovation, it antedates 1200 (because of Mycenaean (Myc.) -*si*), as Risch correctly saw, and probably had its origin in the southeast. Speakers of NEG (L) must already have been present in Asia Minor.[8]




[8] T B have -*νθι*„ and in general -*ντ*- > -*νθ*- in the verb in those dialects. Hence there occurred a relaxation of articulation after -*ν*- similar to that seen in Skt. *panthāḥ* from PIE **pontos*. This change may therefore not be of the same nature as the assibilation of -[ti] which did not require—but allowed—a preceding -[n]-. Nonetheless L may have had -*νθι* in the third plural active. See below NEG 6.

2) *πρός* vs. *ποτί* "near" (Coleman #31)

Risch merely opposes these two forms and does not attempt to decide which is the innovation and which the relic. In fact it is usually assumed (Risch 66, Coleman 90) that both forms are inherited, and that the various dialects have independently chosen one or the other form. This is indeed possible, but from a consideration of the map, it appears that *ποτί*, common to DN T B (and Homer), is the older form, and that *προτί* is a development of *ποτί*, possibly under the influence of *πρό* and *πρόσθεν* "before." Coleman correctly observed that there are two isoglosses here: the insertion of *-ρ-* and the assibilation of **-ti*.[9] Assibilation takes place as in 1) above, thus in ArC A I L, while the insertion of *-ρ-* occurs only in A I L, and in Cretan (*πορτί*) and Argolic (*προτί*: once, Schwyzer 1923: 84, 3, in an inscription mediating between Cnossos and Tylissos, two Cretan towns) beside *ποτί* and *ποί*. It thus seems that *προτί* > *πρός* is an innovation of the Asia Minor coast (SEG plus L) which spread, perhaps through recitation of the Homeric poems, sporadically to Argos and more firmly to Crete, unless the Cretan form is a parallel and independent innovation. Since ArC is not affected, and Argolic and Cretan are, this innovation




[9] From Myc. *po-si* we now know that we have here to do with assibilation and not with the addition of *-ς* to *προ* as held by Buck (58) and Coleman (89).

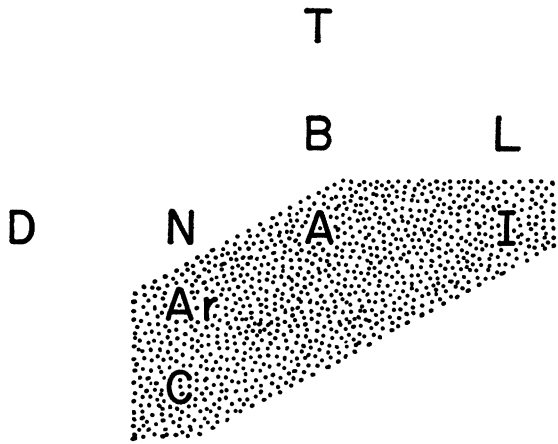
must have taken place after the isolation of ArC, hence after Dorian settlement of the Peloponnese. Hence, too, we cannot utilize our first schematic map, but require a map which represents Greece during the classical period in order to display this innovation correctly. The presence or absence of *-ρ-* cannot be utilized in determining bronze age dialectal relations.[10]

3) **totios* > τόσος (Coleman #12)

This change is broader than Risch and Coleman indicate, for it affected all cases of *-ss-* which existed at the time regardless of their origin: γένεσι < γένεσσι < **genes* + *si*; ποσί < ποσσί < **pod* + *si*; as well as τόσος < τόσσος < **totios*. Risch's exposition is merely a convenient shorthand for *-σσ-* > *-σ-*. We cannot be sure, because of deficiencies in the Cypriote syllabary, that Cypriote shared in this innovation. Since, though, Myc. *to-so* is generally held to show that Mycenaean did, we may assume that Cypriote did as well. In that event the change affected all of South Greek (ArC AI), is prior to the Dorian settlement of the Peloponnese, and is likely to be prior also to the movement of L Ae into the innovating area of Greek. It is possible, however, that the markedly different consonantal structure of L—frequent geminates among the continuants—prevented the simplification of *-ss-* there. We will see later that the NEG dialects were in general conservative in their consonantal system. It is thus best ourselves to be more conservative and to state only that L was not affected by this change. This one change, one of the very few shared

[10] From the above discussion I have omitted two forms commonly introduced in this connection: L πρές and Pamphylian περτί (Schwyzer 1923: 686.7 περτ' ἰρῆνι; 686a4 περτέδωκε, *SGDI* 1260.3 περτέδωκε cited in Schwyzer's note to 686a). L πρές occurs only once in a section of a grammatical treatise dealing with peculiar things that happen to /o/ in Aeolic attributable to Ioannes Grammaticus, a sixth or seventh century A.D. grammarian (Hofmann II.216: O. Hofmann, *Die griechischen Dialekte*, Vol. 2 [Göttingen] 189). Since this form (πρὸς σέ πρὲς σέ) appears in no other sources, earlier or later, and since indeed it would be most strange to find phonologically distinct but functionally identical words coexisting from earliest times to the Alexandrian period in Aeolic, we may safely remove this form from consideration. It probably rests on a misunderstanding of the Hesychian gloss περ σέ· πρός σε (Hofmann *ibid.* 244; cf. περὶ ἐμέ πρός με). The Pamphylian forms are more difficult, and I cannot claim to be able to understand them or the constructions in which they appear. On the whole, though, even though this, too, causes trouble, I tend to feel that they mask πεδά.

exclusively by ArC and AI, created out of a unified Greek a division between innovating south and conservative north.[11] From this (possibly pre-Mycenaean) point on, almost all innovations originate in the south. The fact that DN and Ae are together in not undergoing this change proves nothing about their relation to one another: common innovations, not preserved archaisms, alone can be evidence of linguistic relationship.




4) Athematic infinitive: *-ναι* vs. *-μεν(αι)* (Coleman #48, Buck #43)

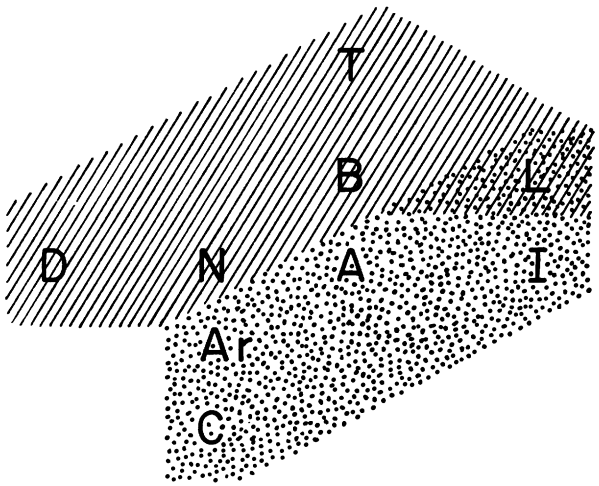
Again Risch merely states the isogloss and does not attempt to determine where the innovation lies; and indeed in this case there seems little need: *-ναι* characterizes ArC AI L, thus the same dialectal area we found in 1) and 2) above, while *-μεν* is shared by DN T B L. L belongs to both groups, and probably therefore reveals the chronology of the changes:

1) development of *-μεν*
2) addition of *-αι*

[11] Homer has both *τόσσος* and *τόσος*, and if we identify Myc. *to-so* with this latter, shorter, form, then we are forced to conclude that Homer preserves a pre-1200 linguistic form. Though elements in the poems may be that old, it seems to me unlikely that any linguistic form is. Hence I feel that Myc. *to-so* represents [tosson] and that the two SG changes of PG **ts* are to be dated as follows:

| | |
|---|---|
| pre-1200 | **ts* > **ss* |
| post-1200 | **ss* > **s* |

Risch correctly saw that the distribution of these endings demanded a date prior to the Dorian presence in the Peloponnese, though Myc. evidence, which alone could prove a date before 1200, is yet lacking. A split into north and south like that seen in 3) above is clearly presupposed by the development of *-μεν*,[12] and the inclusion of L in innovating Greek by the addition of *-αι*. In this case we seem to find two innovations, and hence two groupings on the map: shading will as usual denote ArC AI L, while cross-hatching will denote DN T B L.




This much is all that is required as far as dialect geography is concerned, but it is important also to attempt to determine what the original situation was. If I am correct in assuming that in the south *-αι* of the aorist infinitive was added to the athematic infinitive ending, it follows that that ending was *-(e)n*, possibly, though not necessarily, from **-hen* < **-sen*, thus the same as the thematic infinitive. It is therefore clear that in the north this **-en* was extended and rendered morphologically clearer by the insertion of *-μ-* between the athematic stem and the ending in its longer form *-εν*. This *-μ-*, like the *-θ-* of the aorist passive and the *-κ-* of the perfect, had no meaning and its

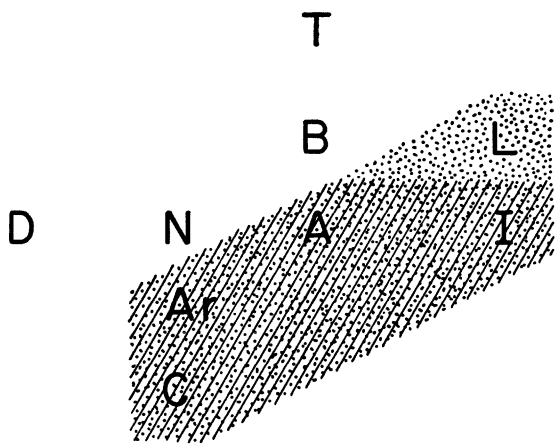
[12] This statement is probably too strong. As I shall argue below the insertion of *-μ-* may have been PG (cf. its occurrence in Homer) and hence inherited by SG but discarded there in favor of *-ναι*.

sole function was to protect the morphological integrity of the athematic infinitive. Such being the case, it is likely that the source of the -μ- will never be determined, but it seems to me most likely that it somehow arose in the infinitive of the verb "to be." Either *e:n (< *esen), homophonous in DN at least with the third plural of the imperfect of the same verb, *e:n, was felt to be too short, and was again infinitivized by adding -en: *ἦνεν then passed to ἦμεν (εἶμεν, ἔμμεν) by dissimilation: (dissimilation in the case of ἔμμεν seems difficult, and renders this explanation dubious); or -μ- was felt in some way to characterize the verb "to be," and the infinitive was built on the supposed stem *em-. It is difficult to know when and where this innovation had its origin—it must have been a constant temptation—, but it probably took place prior to the passage of -RR- (R = resonant) to -:R- in all dialects save those of the northeast (#9 below). If this is the case, then it was a very early change indeed.

The dialects of the south either never knew the innovative form -μεν (which is unlikely because of the Homeric situation), or, though knowing it, preferred using the old infinitives (*e:n "to be," *tiᵇén (or *tiᵇé:n) "to place," *histá:n (or *histán) "to stand") extended by another clear mark of the infinitive, the -αι of the aorist, to inserting -μ-, an unclear morphological mark, which had the added disadvantage of creating a disturbing near homonymy with the first person plural active ending of the same verbs. This change probably was aided by the presence of -αι already in all middle infinitives. Thus it is possible, though perhaps not likely, that Eretrian εἶν τιθεῖν διδοῦν, Chian εἶν, directly reflect the PG situation, as may also Cyrenaean καττιθέν διδών beside θέμεν δόμεν (Buck 125). L clearly is either doubly innovative in adding -αι to already remodeled -μεν; or is conservative in preserving -μεν, innovative in adding -αι.[13] Rhodian and Cretan later innovate by extending the quantity of the thematic

[13] L -ν in the infinitive of contract verbs (κίρναν ὄμνυν κάλην) causes some slight trouble if one holds that such verbs are conjugated athematically (Buck 123): we should expect *κιρνάμεναι *ὀμνύμεναι *καλήμεναι. In fact forms of this sort do occur in Homer: καλήμεναι *Il.* 10.125, φιλήμεναι *Il.* 22.265, and prove that this option did exist at one time, but failed to catch on. The L forms, however, merely preserve the PG situation, and indicate that these verbs were not considered to be of the same type as other athematic verbs such as τίθημι. Put another way, the L rule read: add -αι to -μεν. δίδων (Schwyzer 630.15) seems to indicate that in L δίδωμι had entered the category of *o*-contracts.

infinitive *-ēn* also to the athematic, an innovation which did not get far. The innovation in the opposite direction, extending *-μεν* also to the thematic infinitives was restricted to the NE portion of mainland Greece (and to Homer?) save for the one isolated *προϝειπέμεν* from Lyttos (Buck 122). I feel that here we should follow King 90–92 (R. D. King, *Historical Linguistics and Generative Grammar* [Englewood Cliffs 1969]) and assume that T and B show a generalization of an improperly understood grammatical rule, and that therefore *-μεν* as an athematic ending originated elsewhere, either in NWG or indeed in PG itself, and was introduced (and misunderstood) in T B. Since DN was generally conservative in morphological matters, particularly in the verb, I prefer to assume that *-men* coexisted with *-en* already in PG, but was discarded in SG in favor of *-en*, subsequently extended by *-ai*. If this is the case, we regain our familiar maps of 1) and 2) above (shading for *-αι*) and of 3) (cross-hatching for *-en*):




5) *εἰ* vs. *αἰ* "if" (Coleman #34, Buck #41)

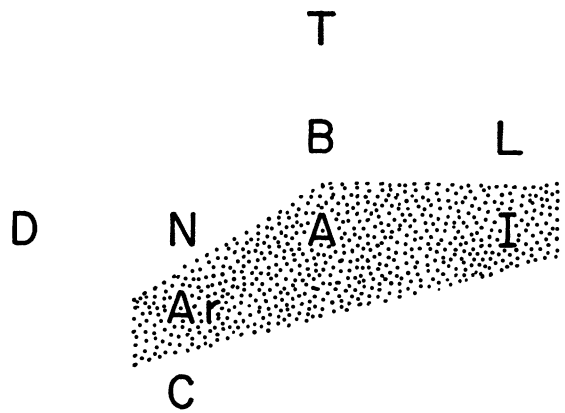
Again Risch merely lists the isogloss and does not endeavor to determine which is the innovation and which the archaism: as a result this example cannot be used as evidence for prehistoric grouping of dialects. Or, less positively stated, it cannot be used unequivocally and without an arbitrary decision as to which form is the older. *εἰ* occurs in Ar AI, *αἰ* in DN Ae.

6) ἄν vs. κε and κα, the modal particle (Coleman #35, Buck #42)

The dialectal distribution is much the same as for "if," with Ar AI showing ἄν, and the northern dialects showing forms with κ-: κε in L T, and in this matter joined also by southern C, κα in B ND. Both Ae and ArC here show divergences within what have in the past been considered united families. We again need to know the original form in order to decide which is the innovation, and though Risch seems to favor ἄν as the innovation, he does not undertake to show by what route ἄν arose. In past discussions of this problem, items 5) and 6), because obviously having to do with different words, have generally been treated as separate matters to be discussed separately. I propose instead that we treat them together and hold that the two developed as they did because they were so frequently in contact. The question then becomes: what was the original collocation which lies behind the attested forms? It must have contained -κ- because of the agreement of the NG forms with Ar εἰκ, and indeed because of the agreement of Ae and C κε, it must have contained κε. Such being the case, we may presume that T and L (together with Homer) have preserved the earlier situation with "if" as well and that the original collocation was αἰκεν. All other dialects have innovated in one way or another, DN B only slightly in lowering the final vowel to -α: this latter innovation need not be, and probably was not, contemporary with the SG change.

In SG there developed a tendency—for whatever reason—to interchange the quality of the two vowels such that εἰκαν resulted, a form still preserved occasionally in Ar (Schwyzer 1923: 656 *passim*). This tendency, however, did not affect C, either because C had lost touch with the main tendencies of SG. or because C had already innovated by replacing αἰ with ἦ, and the exchange of vowel quality was no longer possible there. There is no reason to be surprised that C fails to participate with Ar in this innovation, for surely it is frequently the case that a change—particularly a morphological change—does not spread so as to embrace an entire area. Only those who impose the unrealistic requirement that every linguistically defined area (dialect) be linguistically uniform will find C κε hard to accept. That this tendency to interchange low-front with front-low has not been invented solely to account for this one relation is proved by the (at least)

SG tendency to replace the third person plural of the aorist optative *-αιεν* with *-ειαν*, as well as by certain more isolated cases such as *'Ρήνεια* beside *'Ρηναιεύς* and Heraclean *προτερεία* for A *προτεραία*. Clearly all dialects of the south (save C, which is no longer relevant in this matter) redivided the resulting complex *εἰκαν*, probably on the analogy of the frequent *οὐκαν*, and came up with the new *εἰ αν* (> *ἐαν* in AI). We thus find that Ar AI innovate here in their treatment of *αἰκεν*, and that AI, at least, further innovates in its reanalysis of the complex and its creation of *εἰ* and *ἄν*.[14] Ae and DN B, to the latter of which we turn in the next section, were left behind, and did not experience this change. Again this fact says nothing about any closer relationship between Ae and DN since again both have merely preserved the original situation. Our map will show:

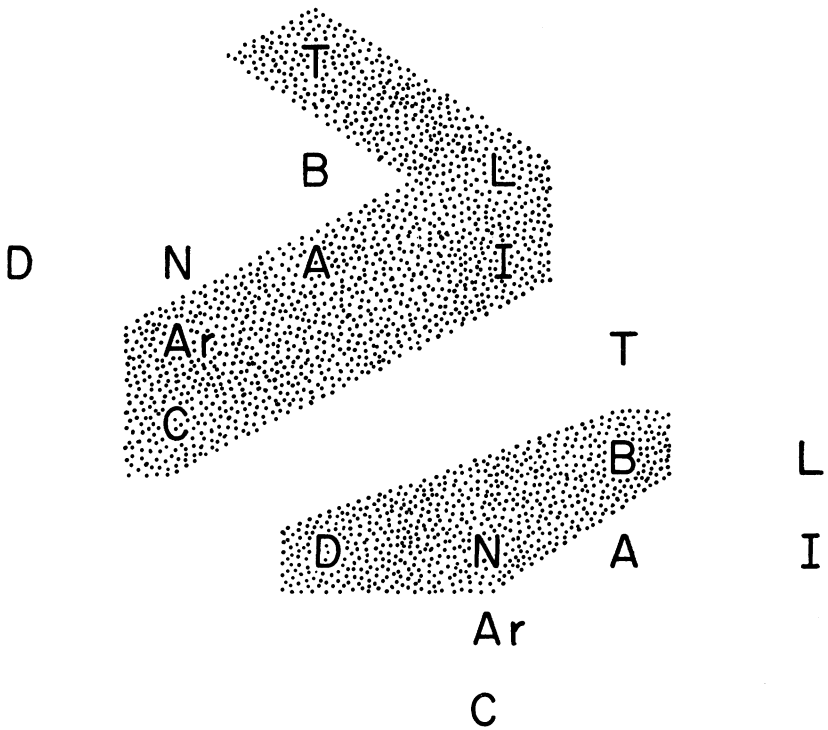



7) *ὅτε* ~ *ὅτα* ~ *ὅκα* "when" (Coleman #36, Buck #7)

*ὅτε* occurs in ArC AI and possibly T (T *ὅτ'*—Schwyzer 1923: 565.2 is ambiguous); *ὅτα* in L (and possibly T); *ὅκα* in DN B, thus in that

[14] I here follow Palmer 90–92 (L. R. Palmer in: *A Companion to Homer*, A. J. B. Wace and F. H. Stubbings, Eds. [London 1962]) and K. Forbes (*Glotta* 27 [1958] 179–82) in assuming **eikan* as the ancestor of the SG forms. I cannot, however, follow them in assuming that *κα(ν)* is the zero-grade of *κεν*. Ablaut relations (*e*-grade, *o*-grade, zero grade) are not phonologically conditioned alternants in IE languages, but are rather functionally conditioned, regardless of what the situation in PIE may have been. Since there is no functional difference between *κε* and *κα*, and since *κεν* > *κα(ν)* is not a phonological rule of G, I do not feel that ablaut can be invoked to explain the relation of *κε(ν)* to *(κ)α(ν)*.

area (generally NWG) that has κα for the modal particle κε. We may assume that ὅκα also replaces earlier *ὅκε with the final vowel again lowered to /a/, a lowering seen also in πρόσθα "before" (Buck 104–5, Coleman #37).[15] This same lowering seems to have affected all of NG (again with the possibility that T is an exception), for L has ὅτα (Schwyzer 1923: 634.33) and ἄλλοτα and πότα (Alc. *PLG* 38 A 11): L, before the final vowel was lowered, had ὅτε. Thus we see that for dialectal grouping only the consonant and not the vowel is relevant. ArC AI L T (and Myc.?) are in agreement in having ὅτε as their starting point as against NWG *ὅκε. Thus we find a grouping of dialects that we have not seen before. The question then is who has innovated and who has retained the earlier form. Depending on which area we choose as the innovator we will have one or the other of the two maps:




[15] A εἶτα ἔπειτα, which seem to obey the NWG rule, beside I εἶτε ἔπειτε has the second vowel dissimilated by the first: εἶτε > εἶτα; cf. αἰκεν > εἰκαν.

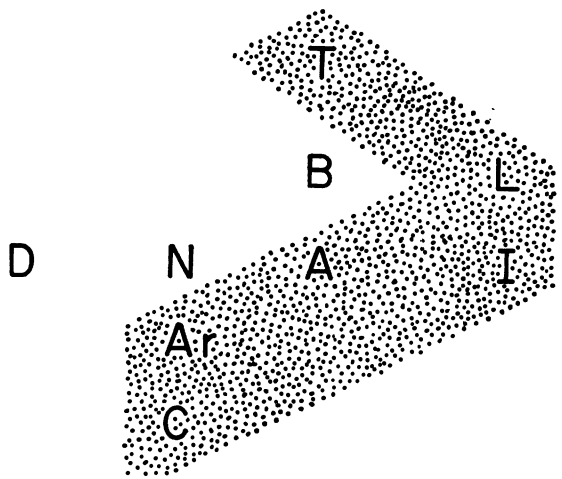
In general we have seen that innovations tend to move from south to north and we are thus rather predisposed to feel that DN B are conservative again in this matter. Only the situation in T causes one to think twice about such a conclusion, for T elsewhere has been among the most conservative of dialects. A final decision awaits our finding other isoglosses that would tend either to confirm or exclude a generally EG grouping as against the conservative NW.

At present we are hampered also by the fact that we are not clear about the history of these words. There are in fact, I believe, only four possibilities:

1) *ὅκε and ὅτε coexisted in PG
2) *ὅκε > ὅτε
3) ὅτε > *ὅκε (> ὅκα)
4) x > ὅκε in DN B
   > ὅτε elsewhere

If we adopt 1), we then must suppose that two forms were competing in PG, and that *ὅκε meaning "whenever" (*vel sim.*) was generalized in NWG, while ὅτε (< *hokʷe?), and meaning "when" in a correlative sense with *tokʷe "then" was generalized in all other areas. This is not impossible, but seems unlikely. 2) satisfies all requirements, though it is perhaps weak semantically, if we can assume a change /k/ > /t/—/e/ in word final position in all areas of Greece save in NWG (and possibly in Homeric ὅ κε in the phrase εἰς ὅ κε). 3) likewise would satisfy all requirements, but seems excluded both phonologically: a change of /t/ to /k/ before a palatalizing vowel seems highly unlikely; and dialectologically, if we may prematurely assume what is to be proved: we would have to assume an innovation in a generally conservative area. 4) may be merely a variant of any of the other three. x may have developed both to ὅτε and to ὅκε in PG; ὅκε may be x or ὅτε may be x. But if we require that x be neither ὅτε nor ὅκε, it seems clear that it must be *hokʷe, a possibility envisioned by Coleman (80) and Schwyzer (1939: 629) among others, and one which seems semantically appropriate. The phonological developments will have been simple and straightforward, though none the less of a rare and infrequent nature such as to seem exceptions. *hokʷe passed to *hoke in all of Greek as a result of dissimilation of labialization occasioned by the preceding rounded vowel /o/, parallels for which can be found in I ὅκως ὁκοῖα.

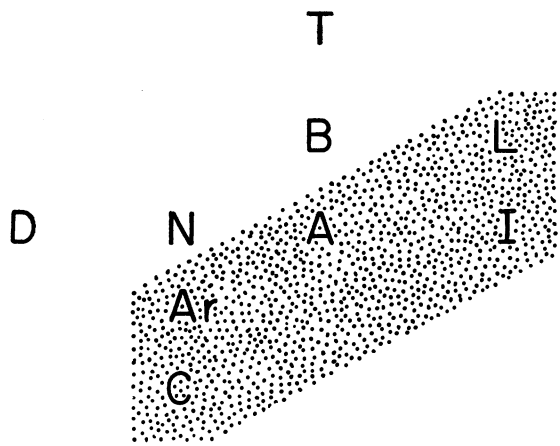
In all dialects, though, save for DN B (and possibly Homeric ὅκε), the phonologically regular **hoke* was replaced by the morphologically clearer **hok$^{w}$e* which then developed as did *-k$^{w}$e* in all other cases to -τε.[16] Or we can operate without assuming a replacement by simply holding that **hok$^{w}$e* was felt in all of Greece except NWG to be composed of **ho* + *k$^{w}$e*, two morphemes separated by a morpheme boundary, while in NWG the morphological composition of the word was ignored, and phonological processes, blocked in the rest of Greece, allowed to operate. The preserved (or restored) morphologically intact **hok$^{w}$e* renders clear the fact that this word contains the relative pronoun ὅ plus *-k$^{w}$e* which makes the whole correlative with **tok$^{w}$e* "then" in a semantically satisfying way. It seems therefore most likely that a pan-Greek morphological innovation (or reanalysis) failed to reach NWG, a conservative area embracing DN plus B. We require the first of the two maps given above:




[16] There are obstacles in the way of assuming **hok$^{w}$e*. 1) Myc. has *o-te* (PY Ta711.1) for which we should expect **o-qe*. 2) C has ὅτε (Schwyzer 679.1) for which we might rather expect ***ὅπε. 3) L has ὅτα instead of expected ὅπα. The L example, though, is easily taken care of, for **k$^{w}$e* > τε even in Ae in the word for "and." We may assume that, though this development did not take place in Myc. "and," it did take place already in "when." The same development will clearly have obtained in C. The palatalization of **k$^{w}$* before /e/ seems to have spread gradually, affecting first enclitic and enclitic-like words. Hence: 1) **hok$^{w}$e* > **hote*; 2) *-k$^{w}$e* "and" > -τε; 3) **k$^{w}$e* > **te* elsewhere (only in Ar AI DN).

8) βολ- ~ βελ- ~ δελ- "want" (Coleman #38)

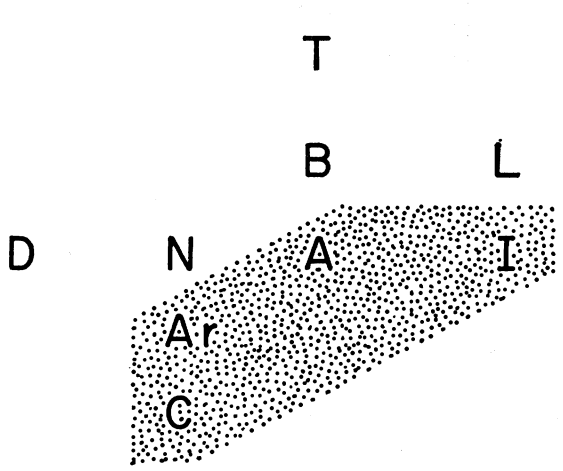
In this instance Risch, ignoring the initial consonant, seems to regard the /o/ vocalism of the verb as the innovation, for if it is not, the fact that ArC AI L again agree is of no importance. I can see no way of proving this, but it is interesting that L again sides with SG, as in nearly all cases considered thus far. We will have to assume that L arrived in Asia Minor in possession of both *$g^{w}el$- and *$g^{w}ol$- in this family of words, and that the innovation of replacing the /e/ of the present indicative subsequently reached it, causing it to discard the competing *$g^{w}el$-. Once again, though, we are hampered by our ignorance of the PG form and the exact history of this word. In any event I do not regard this isogloss as being very important, the less so since East Crete has βώλωνται (Schwyzer 1923 : 199.16), and is not to be given as much weight as some of the other changes. Nonetheless the map is that of 1) and 2) above:

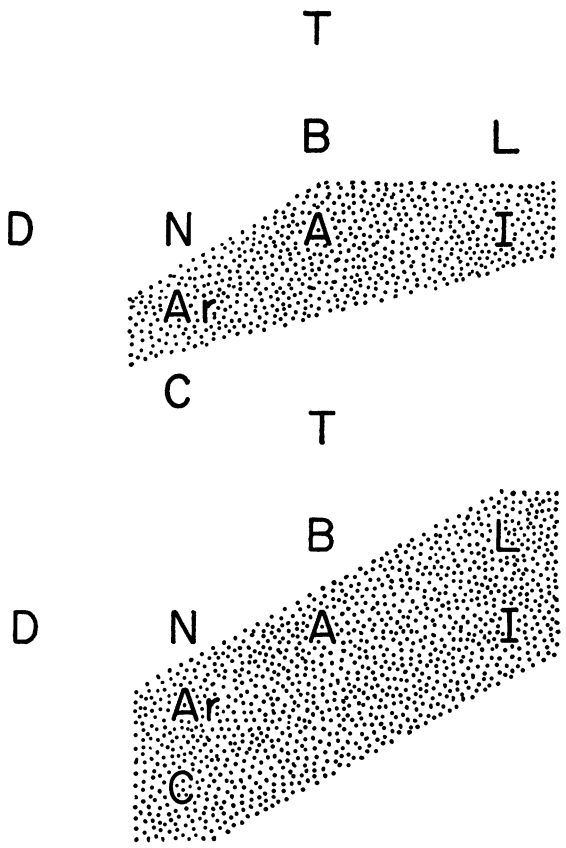



Summing up this section of Risch's table, then, we find the clear split between NG and SG postulated by him confirmed. This split does not mean, though, that communication abruptly ceased, and is in all probability merely an index of the fact that Greek speech now extended from Thessaly to the Peloponnese. SG as defined by Risch appears in its purest, most canonical, form only in 3 (-/ss/- > -/s/-), if

indeed C shared in this change; and in 4a (*-εν* as the ending of the athematic infinitive). Elsewhere SG includes also L: 1 (**-ti > -si*), 2 (*p(r)oti > pros*), 4b (add *-αι* to the athematic infinitive), 8 (*βολ-* in 'want'); or does not include C: 5 (*εἰ* for "if"), 6 (*ἄν* as the modal particle). In NG we find but one innovation, the lowering of final -/e/ to -/a/ in adverbial words, a change which in the case of *κε* failed to reach T and L, though it seems to have in the case of *ὅτ'*. In NG, therefore, we need no dialect boundaries, as Risch correctly saw, save in the case of *κα* vs. *κε* and *κα* vs. *τ(α)*, and these (slight) differences demand a distinction between DN B on the one hand and TL on the other, not between DN and Ae. All other isoglosses represent shared archaisms, for I prefer to regard *-μεν* of the athematic infinitive as an archaism because of the Homeric situation: *-μεν* was probably present originally in all areas of Greece but was discarded in innovating SG. (- *ὅτ* "when") includes not only ArC AI L but T as well. It does not fit in quite comfortably with the other changes of 1–8, and I shall postpone discussion of it till later.

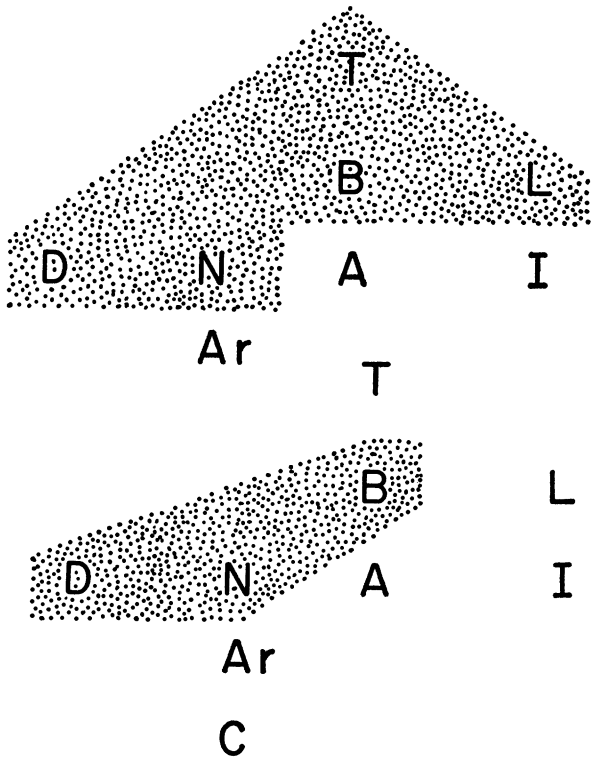
In SG matters are more complex, but even there there is no need for dialectal distinctions of the traditional sort. Some changes affected only ArC AI, and did not reach L (3, 4a); others affected Ar AI, but failed to reach either L or C (5, 6); but the largest majority (1, 2, 4b, 8) reached both C and L. We therefore require three different extents of the area of innovation:






Map 2 shows the innovating area at its smallest, 3) at its largest. We may hypothesize that the original innovating area 1) first expanded (to 3) and then contracted (to 2). There is no need for this hypothesis, but if we wish to tie dialectal innovations to history, we must suppose some such development.

Maps of NG are either blank because there was no change (1, 2, 3, 4, 5, 8); or show an innovation common to the whole area (7: -/e/ > -/a/); or an innovation restricted to DN B (6: -/e/ > -/a/).




a) may be older than b), though such is not a necessary assumption, and b) may be roughly contemporary with 3): i.e., L and B may have at the same time, or at about the same time, become separated from T, which is merely another way of saying that T at about this time became isolated from the rest of Greek.

It is interesting to note that nearly all of Risch's isoglosses are SG innovations, and perhaps are more particularly SEG characteristics, i.e., features which originated in whatever the pre-Dorian home of AI was. To these we can add several more which embrace the entire innovating area.

SEG 1) **tu* > *su* (Coleman #11)

This change, whatever the precise phonetic or analogical details are (Lejeune 56), seems to have affected the same area in which *-ti* passed to *-si* (Buck 58), though I know of no evidence for C.

SEG 2) *ἱερός, ἶρος, ἰρός*, vs. *ἰαρός* "holy" (Coleman #20, Buck #6)

*ἱερός* is ArC AI, and its later development *ἶρος* and *ἰρός* appear respectively in L and (sporadically) in AI. The PG form of this word, *ἰαρός*, is preserved in all other dialects.[17]

SEG 3) *εἴκοσι* vs. *(F)ίκατι* (Coleman #22, Buck #2)

Cypriote evidence is again lacking, but we are probably justified in assuming that it also possessed *εἴκοσι*. There are three innovations here:

1) */wiy/- > */ewiy/-*
2) */a/ > /o/* in numerals
3) *-/ti/ > -/si/*

The first change is purely phonological and indicates what we already knew, namely that prothesis does not occur before */w/-* in non-SG dialects (Wyatt 1971). The second change is partly phonological, but is also possibly analogical: analogy with the /o/ of the ending *-κοντα* in "30" etc., must have been at work (Coleman 72, Buck 96–97). 3) is Risch #1 above.

SEG 4) *-κόσιοι* vs. *-κάτιοι* or *-κάσιοι* "hundred"

Clearly this change also involves 2) and 3) of SEG 3), but here we find a surprise: though AI L have *-κόσιοι* as expected for NG *-κάτιοι*, Ar takes up a middle position in having *-κάσιοι*. We can if we like assume Ar *-κάτιοι > -κόσιοι* (with SG) *> -κάσιοι* under the influence of neighboring D dialects, but to me this seems a strange linguistic event. I therefore prefer to assume that */a/ > /o/* in *-κόσιοι* is a later development than *-ti* to *-si*, and that it took place when ArC was no longer part of innovating G, namely after the Dorian presence in the Peloponnese. We do not know the numerals in C, but I would

[17] *ἱερός* is cognate with Skt. *iṣiraḥ* (Frisk 1.713, Chantraine 1968: 458), and in general G /a/ in an unaccented syllable corresponds to Skt. /i/: G /e/, whether accented or not, generally corresponds to Skt. /a/. It is for this reason that I consider *ἰαρός* the earlier form. On G /a/ = Skt. /i/ cf. my *Indo-European* /a/ 35–41, 56–59 (= Haney Foundation Series Monograph 7 [Philadelphia 1970]).

venture to predict *-κάσιοι* (and possibly even **εἴκασι*). A similar development and extension occurs with "twentieth": *εἰκοστός* in AI, *εἰκοιστός* in L, but *ἰκαστά* in Ar (Schwyzer 654g13). In this case the /o/ has spread also to T *ἰκοστός* (Schwyzer 617g = *IG* IX 2,506,47) probably under AI influence.

SEG 5) dative plural of -o- and -a- stems in *-σι* (Coleman #24)

*-σι* occurs in I *-ησι* L (regular *-αισι* in the noun) and A (sporadic *-αισι*); I L (regular) A (sporadic) *-οισι*. *-σι* forms do occur elsewhere (Pamphylian—Schwyzer 1923: 686.1, 3) and Cretan (rarely—Bechtel 2.729–30, possibly under epic influence), and Coleman (84–85) may well be right in assuming independent selection. Otherwise we will assume an Ionia-based innovation which spread, in the noun at least, firmly to L but only tentatively to A, to be replaced there by *-αις*, *-οις*.[18] There are a number of other SG changes which failed to spread beyond the original (AI) area of innovation either to L or to ArC. They all are to be considered late and of little importance for dialectal classification save that they do justify the traditional designation of AI as one of the four dialects of ancient Greek. It is to be noticed that it is only by means of late changes that we can define AI, again as Risch correctly saw. Our ability to define AI with as many isoglosses as we can is due in large part to the wealth of literary and epigraphical material from this area of the world.[19]

[18] It is generally held that *-si* in the dative continues PIE locatival **su*, while *-οις* continues instrumental **-ōis*. I feel that matters were probably more complicated than that, and that though A *-ᾱσι* (*-ησι*) may reflect PIE **-āsu*, and *-ois* reflects PIE **-ois*, that *-οισι* is remodeled after *-ᾱσι*, and *-αις* after *-οις*. In most G dialects *-ᾱσι* was replaced by *-αις*, and hence there appeared *-αις*, *-οις*. It was an innovation of AI L (and independently (?) Pamphylian and Cretan) to create *-αισι*, *-οισι*. It is generally believed (*Docs.* 84–85 and Vilborg 56–7) that the traditional view is supported by Myc. *o-i* and *a-i* which are taken to represent [oihi] and [a:hi] respectively. This view is, in my opinion, incorrect, and I believe that Myc. spellings represent *-οις* and *-αις* (cf. C. J. Ruijgh *Mnemosyne* Series IV, 11 (1958) 97–116, particularly 111–12; *Études* 76–78 = *Études sur la grammaire et le vocabulaire du grec mycénien* (Amsterdam 1967) and my review of this latter work: *Language* 44 (1968) 616–21.

[19] Other SEG changes which might be mentioned include: SEG 6) *ἄτερος* > *ἕτερος* (Buck 24–25); SEG 7) *ὄνυμα* > *ὄνομα* (Buck 27 Coleman 74); SEG 8) [u] > [ü] (?) (Buck 28); SEG 9) metathesis of quantity (Buck 37–38, 41); SEG 10) *ν* movable in verbal forms (Buck 84); SEG 11) *-ες*, *-ας* in the nominative and accusative respectively of

I have supposed thus far that all SG innovations originated in SEG and spread from there sometimes to encompass SWG alone, sometimes SWG plus L, sometimes merely L. It is now time to investigate SWG to see whether it innovated in any way or was merely the more or less inert receptacle of changes originating elsewhere. Of course SWG did innovate, and because Myc. was a SWG dialect, we are here in the excellent position of being able to date the innovations: we date prior to 1200 those innovations shared by Myc., after 1200 those shared by Arc but not Myc.[20] Most of them are of course those characteristics of ArC listed (e.g.) by Buck (144). Since, however, Buck was unable to consider Myc. evidence, and because he treated features more atomically than is the fashion these days, I feel it will be profitable to discuss some of these characteristics here.

SWG 1) mid vowels > high vowels/__(n)#

This rule states that /e/ and /o/ become /i/ and /u/ respectively either before final /n/ or in absolute final position. It accounts for *ὐν* from *ὀν* (Ar *ὐνέϑυσε*—Schwyzer 1923:676) and *ἰν* from *ἐν* (Schwyzer 1923: 661.1, etc., Coleman #7), these from Ar; *ὐνευξάμενος* (Schwyzer 682.12) *ἰ(ν)* (Schwyzer *ibid.* 3) from C. Also accounted for by this rule are : *-αυ* of the genitive singular of *α*-stems in Ar (*ἀμέραυ* 654.16), masculine *α*-stems alone in C (*'Ονασαγόραυ* 679.1); the third person singular middle ending of secondary tenses of the verb: Ar *ἐξόλοιτυ* (Buck #16.4), C *εὐFρᾱτάσατυ* (Schwyzer 1923: 679.4); the prepositions *ἀπύ* < *ἀπό*: Ar *ἀπυϑανόντων* (Schwyzer 661.32) C *ἀπύ* (Schwyzer 679.8); *ὀπύ* < *ὐπό* with dissimilatory lowering of the first vowel (Schwyzer 664.15, 21); *κατύ* < *κατό* < *κατά* by rule 2 (Schwyzer 656.29); and finally *ἄλλυ* (Schwyzer 656.38); there are no C examples for these last three cases. The rule also spread, somewhat sporadically, to the interior of the word in Ar with the result that we get occasional forms such as: *ἀπεχομίνος* etc. (Schwyzer 661.20) from Mantinea;

*ἠμέ-* and *ὑμέ-* (Buck 98); adverbs of place "where" in *-ου* (Buck 102); *ἦν* for *ἦς* in the third singular of the imperfect of the verb "to be" (Buck 128). None of these changes spread until the formation of the koine on the basis of AI.

[20] We can do this with complete justification (because of Myc.) only for SWG. It is a theoretical (but probably not practical) objection to Risch's scheme that he dates all changes in the Greek world to prior to 1200 and later than 1200. Some changes may have begun prior to 1200 in one area but not reached another area until much later.

*'Ερχομινίοις* (Schwyzer 665 A 3), and before -/m/-, *στυμέον* (Schwyzer 664.21) and *ὑμοίοις* (Schwyzer 665 A 5) from Orchomenos. Of the above, Myc. has only *ἀπύ* (PY Ta641.1, *a-pu-do-si*, frequent), thus suggesting that the change took place first in prepositions and then spread. All the other forms are likely to be early but post-Myceneaean.

SWG 2) /a/ > /o/ / #(C) VC_$\begin{bmatrix} \text{rC} \\ (i)\# \end{bmatrix}$

Condition: no grammatical information is conveyed by /a/

This rule provides that /a/ is raised and rounded to /o/ before /r/ in all positions save initially and finally; before final /i/; and in absolute final position in words of more than one syllable, provided that /a/ does not convey grammatical information. The reason for this is—restricting mystself only to Ar—that we want to have *ἐναι* (Buck #16.1), not **ἐνοι*; *ἔασα* (*ibid.*3), not **ἔασο*; *Fέτεα* (*ibid.* 6), not **Fέτεο*; *αἶγα* (Schwyzer 654.2), not **αἶγο*; *οἱ δικασσταί* (Schwyzer 661.19), not **δικασστοί*; *δάσασσθαι* (*ibid.* 17), not **δάσασσθοι*. In all of these cases the /a/ conveys some grammatical information: neuter plural nominative-accusative (*Fέτεα*); accusative singular of consonant stems (*αἶγα*); and/or is supported by other forms of the same category with /a/ not subject to raising: *ἔασα*, nominative singular feminine beside *ἐάσσᾱς*; *δικασσταί*, nominative plural of masculine *a*-stems; *ἐναι* and *δάσασθαι* both infinitives with the /a/ supported by the /a/ of the aorist. It does, however, allow /a/ to pass to /o/ before /r/ in: Ar *τετόρταν* (Schwyzer 656g 104), *Στόρπαο* (652), *παναγόρσι* (654.26); C *κατέFοργον* (679.1), etc. (Wyatt 1971a); before final /i/ in the third singular middle primary ending of the verb: Ar *βόλētοι* (654.9), *γένητοι* (656.2); C *κεῖτυι* (683.6) with further application of rule 1) extended to /_i#: finally in *δέκο* seen in Ar *δυόδεκο* (654.21), whence also *δεκόταν* (*IG* v 2 282.2) and *ἑκοτόν* (Schwyzer 654.4); and in *κατά* > *κατό*, whence to *κατύ* by SWG 1) above.

All of the above rule together with its conditions applies also in Myc., thus showing that this rule at least antedates 1200: before /r/: *to-no* "chair" PY Ta707.1)—cf. *θόρναξ· ὑποπόδιον* (Hsch.), *to-pe-za* "table" (PY Ta642.1), *wo-ze* "works" (PY Ep617.4); before i, also in the third singular middle: *di-do-to* (= *didontoi*) PY Ng319.2, *e-u-ke-to-qe*

(= *euk$^{h}$etoiq$^{w}$e*) PY Eb35; and finally in numerals: *e-ne-wo* "nine" (PY Ta642.1), which suggests also that the number "ten" would have been spelled **de-ko*. It may seem strange—it does to me—that rule 2) should precede rule 1), for I would have expected rule 2) to need rule 1) as a precondition for its coming into being. For had it been otherwise, I would have expected spellings with *-u-* in Myc. (e.g.) in the secondary tenses of the middle and in the genitive singular masculine. Such is not the case, however, and as a result we must assume that Myc. spelling masks two different types of *-o*, one which later passed to -/*u*/ (Ar ἐξόλοιτυ), and one which remained -/o/ (Ar δέκο).[21]

SWG 3) **k$^{w}$is* > **t'is* > σις

There was a rule of early Greek (which we will discuss in greater detail in connection with Risch #10) in accordance with which the labiovelar **k$^{w}$* was palatalized [22] to something like [t'] when it appeared before /i/, which [t'] was in all dialects save ArC identified with inherited [t]. In ArC this identification failed to take place, and the development towards [s] continued. Thus in Ar we find a peculiar character Ⴝ in Mantinea (to be transcribed, following Buck 198, as σ̲ in forms of τις: σ̲ις (Schwyzer 1923: 661.23, 25), ὀσ̲έοι (*ibid.* 14); and spelled with ζ in an early inscription from Cleitor or Lousoi, ὄζις (Buck #16.4). In C we find: σις (Schwyzer 679.23, 29) and σι = τι from Hesychius. In later Ar inscriptions the identification of [$t^{s}$] with /t/ was made, as elsewhere in G, perhaps under the influence of surrounding DN dialects. Clearly all developments involving labiovelars took place after 1200, since Myc. preserves them intact in most positions; and clearly, too, [t'] > [s] (or whatever) must postdate the development of [t']. The question then is, who has innovated, ArC in tending to identify [t'] with /s/, or the rest of G which identified [t']

[21] Myc. forms such as *pe-mo* (PY Eb152) beside *pe-ma* (PY Er312.2) "seed" (= *sperma*) and *a-mo* (KN So7485) "wheel" (= *harmo*) show that Myc. did not consistently apply the condition that /a/ > /o/ only when it conveys no grammatical information.

[22] There is some question as to what the actual phonetic change was in this case. W. S. Allen (*Lingua* 7 [1958] 113–133) speaks of palatalization of **k$^{w}$* to a labiopalatal, while L. Hyman (*Language* 46 [1970] 71), if I understand him correctly, feels that labialization and palatalization are incompatible. In any event **k$^{w}$* > *t* in a palatalizing environment (before /i/), and did so in a way reminiscent of other palatalizations.

with its old /t/. This is a difficult question, but since in many other dialects (save NEG) this [t'] could also occur before /e/, a fact which almost certainly aided in identifying [t'] with [t]; and since C, in this diverging from Ar, had no [t'] before /e/; I presume that the innovating change was to halt the passage of [t'] towards /s/, and to identify it instead with /t/, with the help of the perhaps less distinctively palatalized [te] < *$k^{w}e$ which may have not differed much phonetically from [te] < **te*. If so, then this innovation failed to reach Cyprus, and we may gather that the reason for this is that C was at this time out of touch with the rest of the Greek world, hence after Dorian settlement of the Peloponnese. Hence, too, we will require the chronology:

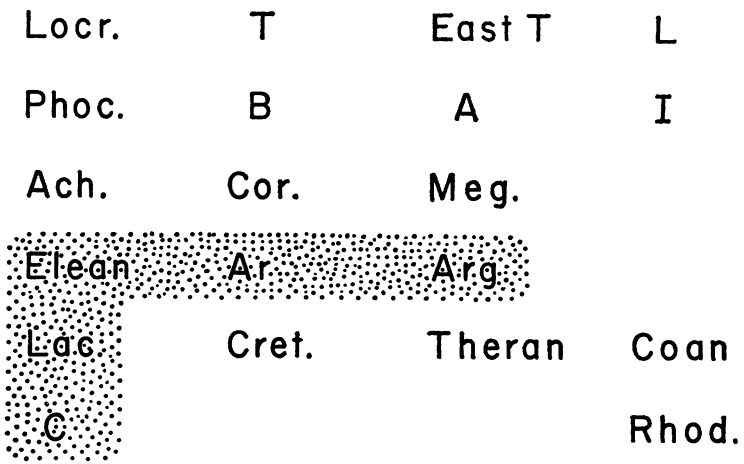
1) [$k^{w}$] > [t']/_____[i]
2) Dorian presence in the Peloponnese
3) Identification of [t'] with [t] in /t/

The ArC, or SWG, change, then, though seemingly innovatory, was in fact a simple continuation of tendencies already present and represents a preservation of those tendencies, and we have to do with conservatism rather than with innovation. We will fill out the relative chronology and further discuss the palatalization of *$k^{w}$ below (Risch #10),

SWG 4) /s/ > /h/ ~ $\phi$

This change, clearly post-Mycenaean, represents a tendency on the part of speakers of SWG to continue the PG rule */s/ > /h/ ~ $\phi$ which accounts for the relations *ἕπομαι* to Lat. *sequor* "follow" and *ἑπτά* to Lat. *septem* "seven." It is therefore a conservative tendency, in that it continues a PG rule, one that either had been deleted or given up entirely elsewhere, or was constantly being repressed because, among other things, it tended to interfere with the morphological clarity of certain words. Examples of the loss of internal -/s/- occur most frequently in Laconian, but appear also in Argolic, Elean, Arcadian and Cypriote: Laconian *ἐποίε̄hε* (Schwyzer 1923: 14), *νικάhας* (Schwyzer 12.3) *ἐνhε̄βόhαις* (*ibid.* 15) *Πoholδαια* (*ibid.* 12), etc.; Argolic *Φραhιαρίδας* (Schwyzer 97), *ἐποίϜε̄hε* (Schwyzer 80.3), *Θηαυρόν* (Schwyzer 89.21), etc.; Elean *φυγαδεύαντι* (Schwyzer 424.6), *ἀδεαλτώhαιε* (*ibid.* 12), *ποιήασσαι* (= *ποιήσασθαι*—Schwyzer 425.33), etc.; in Ar there is but one

example—*πόεστι* for *πόσεστι* (Schwyzer 657.12)—which Buck (56) prefers to regard as a special case of dissimilatory loss of the first *σ*. Such a loss seems highly unlikely to me, and I feel that we have to do here with the surfacing of an inherited linguistic tendency elsewhere avoided, C examples include: *ποεχόμενον* (Schwyzer 679.19), *'Ονάϊϳος* (Schwyzer 683.3), *φρονέōϊ* (Schwyzer 685.4), and in sentence combination: *κὰ ἀ(ν)τι τᾶ ὐχἔρōν* (Schwyzer 679.5), other examples in Wyatt 1964: *ὔγγεμος· συλλαβή* (Hsch.) shows that the change occasionally affected even initial /s/. If we plot on a map of classical Greece the areas in which the change occurs,




we find that, but for Cyprus, the change is restricted to the Peloponnese, and especially to those areas of the Peloponnese in which Mycenaean settlement and civilization were most firmly established. I therefore regard this change as a peculiarly sub-Mycenaean feature which was a characteristic of the speech of those peoples who were overrun, or at least outnumbered, by speakers of a NWG idiom. It is a feature of the substrate over which NWG speech was laid. Furthermore, since the tendency towards loss of /s/ is most pronounced in Laconian and Cypriote, I venture to suggest that Cypriote is most close dialectally, and may indeed be a development, of that variety of SWG which was spoken in Laconia.[23]

[23] Other features of Lac. Elean Arg. (e.g., rhotacism—Buck 56–57, passage of [w] to [β]—Buck 47, *ϑ* > *σ*—Buck 59) are probably also attributable to the SWG substrate,

SWG 5) *κάς* for *καί* "and"

*κάς* occurs in C (e.g., Schwyzer 679.1) beside *κα* before vowels (*ibid.* 5—a complete collection in Wyatt 1964: 173), and in Mantinean Ar (Schwyzer 661.19), *κὰ* (*ibid.* 17); elsewhere in Ar only *καί* occurs. It is now quite clear that *κάς* derives from earlier *κᾰ́τι*, and the only question is what is its relation to *καί*. There are three suggestions known to me: *κᾰ́τι* < *καί* + *ἔτι* (Wyatt 1964); **κάτι* is original, and *και* < **καιτ* < **κάτι* with metathesis of the final two sounds; *κάς* < *κάτι*, as by rule 1) above (Kiparsky: *Glotta* 44 [1967] 133): **κάτι* is original and *καί* < **κατι* by dissimilatory loss of /t/ as in Argolic *ποί* beside *ποτί* (C. J. Ruijgh, *Études sur la grammaire et le vocabulaire du grec mycénien* 331–33 [Amsterdam 1967]). I now feel that Ruijgh is right, and that therefore the preservation of **kati* (> *κάς*) in ArC is an archaistic feature of those dialects. Ar replacement of *κάς* by *καί* need not be influenced by D neighbors, but may represent even there the choice of competing *καί*. If so, C has again failed to move forward with Ar. We cannot know whether Myc. had **kati* (or **kasi*).

SWG 6) Dative with prepositions instead of the genitive

It is a feature common to Ar and C to use the dative instead of the genitive with the prepositions *ἀπύ ἐξ περί ὑπέρ ὑπό παρά πεδά ἐπί* (Buck 108). This change from the situation prevalent in all other dialects apparently represents in ArC a merger of dative and genitive into one "locative" case which is used after prepositions, and which is opposed to both the accusative, which continues to be used with prepositions to denote action directed toward an object, and to the genitive, which is no longer a prepositional case. Clearly this tendency to simplify the grammar—like the Latin—represents an innovation. Whether or not the innovation is to be attributed to Myc. as well is yet uncertain, and depends upon how one chooses to interpret expressions containing *pa-ro*. I prefer to hold with those who feel that the innovation is of Mycenaean date.[24]

and were set in motion by the loss of -/s/. Since, however, they affect individual DN dialects and do not affect ArC, they belong to the histories of these dialects, and are not to be listed as SWG characteristics.

[24] In so doing I follow Vilborg (122) and *Docs.* (90) as against Householder (*Glotta* 38 [1959] 1–10), though not without hesitation. A number of the features listed by Buck

Of the SWG characteristics just mentioned, 1, 2, 4 (?) and 6 are innovations. And of these only 1, with *ἀπύ* but not with *ἰν*, and 2 are definitely of Myc. date. 3 and 4 are certainly later, we cannot know about 5, and about 6 opinions will differ. The cases in 2 are perhaps surprising and most worthy of note. Every case, or type, in later ArC is matched by a case in Myc.: both have *or* < *ar*, *-toi* < *-tai*, *δέκο* < *δέκα*. Not one of these SWG changes spread to the rest of the Greek world. And yet, given what must have been the immense prestige of the dialect of Pylos and Mycenae, we should have expected other Greeks to have emulated their linguistic usage. That they did not, and in fact that they did adopt innovations originating in SEG, may well rank as one of the greater surprises of G dialectal history.[25]

## II

All of the innovations discussed thus far originated in SG, and particularly SEG. Most of the other changes listed by Risch as at least potentially early are either general Greek tendencies, and/or

(144) as characteristic of ArC are in fact preserved archaisms and hence are only negative characteristics. They include:

SWG 7) *ὄνυ* for *ὄδε* – see below MG 8.

SWG 8) *-κρέτης* for *-κράτης*—see below NEG 11.

SWG 9) *ἀπύ*—see below MG 11.

SWG 10) *ὀν*—see below MG 11.

SWG 11) *-μι* inflection of contract verbs—Risch 18.

SWG 12) *ἐν* = *εἰς*—Risch 12.

SWG 13) *η* for compensatorily lengthened *ε*. This is not an archaism really, but is not a feature of the more progressive G dialects. See below MG 1.

SWG 14) *ἐς* = *ἐξ* /__C. This was the regular phonetic development in those dialects which failed to create preconsonantal *ἐκ*. See below MG 7.

SWG 15) subjunctive in *-ης*, *-η* – see below MG 10.

SWG 16) article as relative – see below MG 4.

SWG 17) *πτόλις* – see below MG 9.

Others have been treated already in Risch #2 (*πός*) #3 (*ναι*) #8 (*βολ-*); *σις* will come up in connection with Risch #10.

[25] There are a few cases of peculiarly Myc. innovations which failed to spread: cf. Vilborg 22–23, and especially Risch "Les différences dialectales dans le mycénien" *Proceedings of the Cambridge Colloquium on Mycenaean Studies*, L. R. Palmer and J. Chadwick, Eds. (Cambridge 1966) 150–57 and G. Nagy "On Dialectal Anomalies in Pylian Texts" *Atti e Memorie del 1° Congresso Internazionale di Micenologia, Roma 27 Settembre—3 Ottobre 1967* [*Incunabula Graeca* 25] Rome 1969) 663–79 on the possibility of different dialects—one innovatory—in Myceneaan.

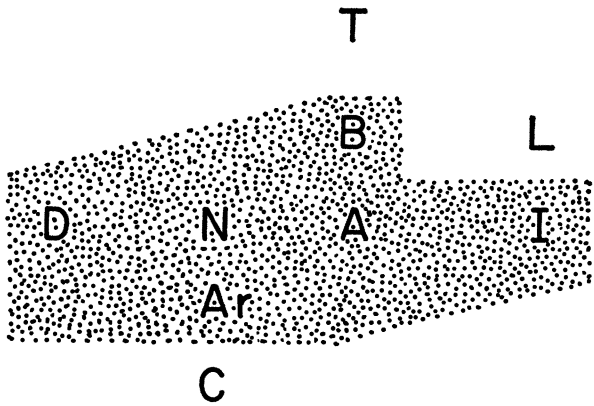
are restricted to a small area of the Greek world. The isoglosses include:

9) *RR > :R ~ RR (**esmi* > *ēmi* ~ *emmi*)
10) *k̑e > τε ~ πε
11) *oi̯* ~ *τοι* in nominative plural
12) *ἐν* > *ἐνς* with accusative
13) *ᾱ* > *η*
14) ns > :s ~ is
15) *αε* > *ᾱ* ~ *η*
16) *-σα* ~ *ξα* in aorist of *-ζω* verbs
17) *-μεν* ~ *-μες* in first plural active
18) *-έω* ~ *-ημι* in contract verbs
19) *r̥ > ρα ~ ρο
20) *-ω* ~ *έω* in future of verbs

9, 10, 11, 17, 18 involve general Greek tendencies which merely failed to reach certain areas of Greece, hence are in general unlocalizable as to point of origin. 13, 15 (?) (AI) 20 (DN) are restricted to small areas of the Greek world. 12–15 are late, as Risch points out; 16 is indeterminate but seems rather late; and 19 is no isogloss at all but represents past incorrect interpretations of the data.

## 9) RR > :R

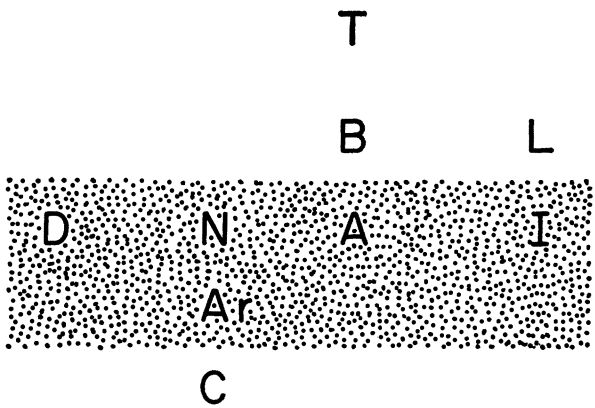
This change affects all of Greece save for T and L, and is therefore a pan-Greek phonological tendency, a tendency that failed to affect the most northeasterly areas of Greece, though it did reach Boeotia. Risch dates the change a little later than the first eight, though still prior to 1200; for what reasons I do not know. It seems to me impossible to date this change—it could be quite late—, but since it failed to affect L, I suspect—though this is not necessary for the argument—that it took place at a time when L was not yet in the innovating area of Greek, though later than the establishment of NEG speech in Boeotia. C evidence is lacking, and if C also failed to undergo the change, we would be free, though not forced, to assume a date posterior to the isolation of Cyprus, hence perhaps after Dorian settlement of the Peloponnese. It would then have affected only the more or less culturally advanced and central areas of Greece.




This map represents the conflation either of maps 1) and 6) or of 2) and b) above. This fact may not be accidental, and our view of the date of the change will depend upon whether we choose map 1) or map 2), that is to say, whether we feel that C experienced this change or not,

10) $*k^we > \tau\epsilon \sim \pi\epsilon$ (Coleman #9, Buck #57)

Risch puts this change after 1200 where the evidence of Linear B and C demands that it go. A map displaying this change—assuming /t/ to be the innovation—shows:




Developments involving labio-velars in all probability post-date the Dorian presence in the Peloponnese, and hence could be displayed on a map of classical Greece. They probably originated either in SEG or in geometric era Peloponnese. It is perhaps surprising that B did

not go along with DN and hence with all the rest of Greek, and the reason probably is that in the NE the labio-velar series was given up earlier than elsewhere. In that event Ae will have in a sense innovated, while C will have been left behind and not shared in the common G tendency to palatalize before /e/ as well as before /i/ (cf. note 28 below).

We must be as clear as possible about the course which these particular changes took. There are two things of which we can be sure and which are shared by all dialects of G: $*k^{w}i$ everywhere yields *ti* (save in ArC in part), and $*k^{w} > p/\_\begin{bmatrix}o\\a\end{bmatrix}$ everywhere; the enclitic particle $*$-$k^{w}e$ everywhere appears as -τε (Lejeune 41, Buck, 62). We therefore need two rules (on the understanding that $*$-$k^{w}e$ is to be included in the first rule):

1) $k^{w} > t/\_\_\_\_\_[i]$

2) $k^{w} > p/\_\_\_\_\_\begin{bmatrix}o\\a\end{bmatrix}$

The only divergence occurs before /e/, in which position most of G applies rule 1), while NEG and C apply rule 2), hence:

1a) $k^{w} > t/\_\_\begin{bmatrix}e\\i\end{bmatrix}$

2a) $k^{w} > p/\_\_\begin{bmatrix}e\\a\\o\end{bmatrix}$

or, rephrased:

1a) $k^{w} > t/$__front vowels

2a) $k^{w} > p/$__low vowels

Clearly, in order to account for the attested distribution of the isoglosses, we need only state that most of G applied 1a) and 2a) in that order, with 2a) applying vacuously before /e/, while NEG and C applied them in the reverse order. Some linguists would be content with this solution as is, but I am not completely. Though it is neat and accounts for the data, it does not explain the distribution of the data and historical developments involving them and seems insufficient as a result. I prefer, therefore, to assume that the common G (for because of Myc. it cannot be PG) tendency, expressed in rule form, was (and we no longer need to distinguish two rules):

$*k^w$ > t′/__[i]
> p/__elsewhere[26]

These rules applied without interruption in NEG and C, and account for developments in those areas. In the rest of Greece, though, an innovation took place, and rule one was understood to apply not only before /i/, but to all front vowels, thus causing the palatalization of $*k^w$ to [t′] also before /e/. The rules in all these areas, then, were:

$*k^w$ > t′/__front vowels
> p/__elsewhere

We may now expand the chronology of linguistic changes and historical events given above in connection with SWG innovation #3:

1) $*k^w$ > t′/__[i]
> $k^w$/__elsewhere
2) Dorian presence in Peloponnese
3a) $*k^w$ > t′__[e i] [Peloponnese]
> p/__elsewhere
3b) $*k^w$ > t′/__[i] NEG
> p/__elsewhere
4) [t′] > /t/ everywhere save in C

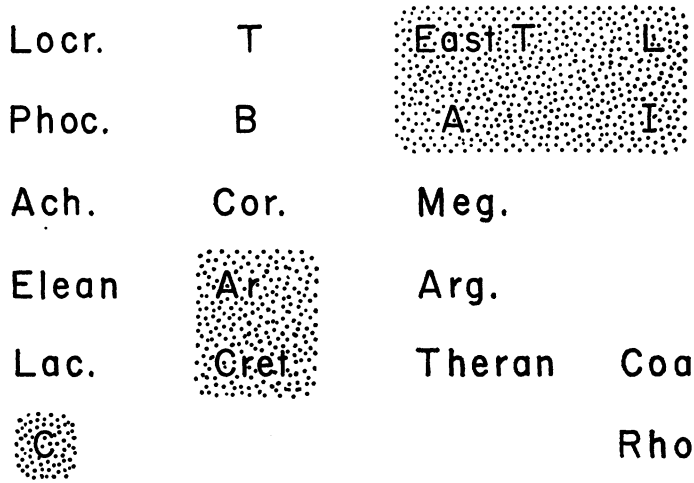
This chronology implies that $*k^w$, though intact in all other positions, had begun to undergo the process of palatalization while DN speech was not yet present in the Peloponnese. The reason for so assuming is the divergence in treatment of $*k^we$- between Ar and C. If this divergence can in any way be got around or can be ignored, then the tie-in with Dorians in the Peloponnese can be given up. In any and all events it is at least clear that the innovation lies with those areas of Greece which palatalized $*k^w$ before /e/, and that that fact alone is of importance for dialectology.[27]

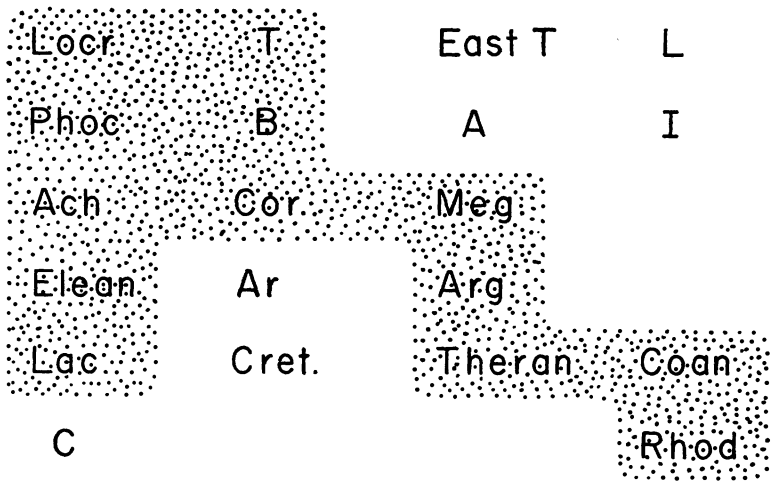
[26] $*k^w$ could not appear before or after /u/, and any cases of $*k^w$ which happened to fall in either of these positions were perceived already in pre-Mycenaean times as /k/, as in κύκλος < $*k^wuk^wlos$ < $*k^wek^wlos$. Cf. Lejeune, *Traité de phonétique grecque* 36 2nd Ed., (Paris 1955) and *Mémoires de philologie mycénienne* I.285–317, especially 293–97 (Paris 1958).

[27] It is for instance possible that the labialization rule originated in NEG, and that the rest of Greek still preserved the labio-velars at a time when they were no more in NEG. We would then assume that the palatalizing trend was brought to SG, affecting $*k^wi$ first,

11) *οἱ* ~ *τοι* in nominative plural (Coleman #28, Buck #5)

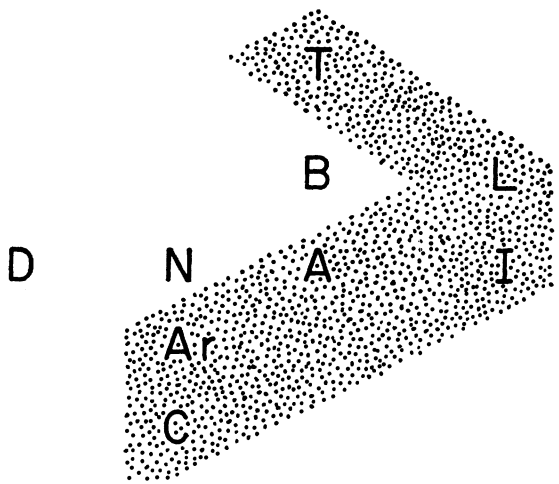
*οἱ* occurs in ArC AI T L and Cretan, while *τοι* is confined to DN B and the Thessalian of Thessaliotis. Once again we are forced to choose between two maps



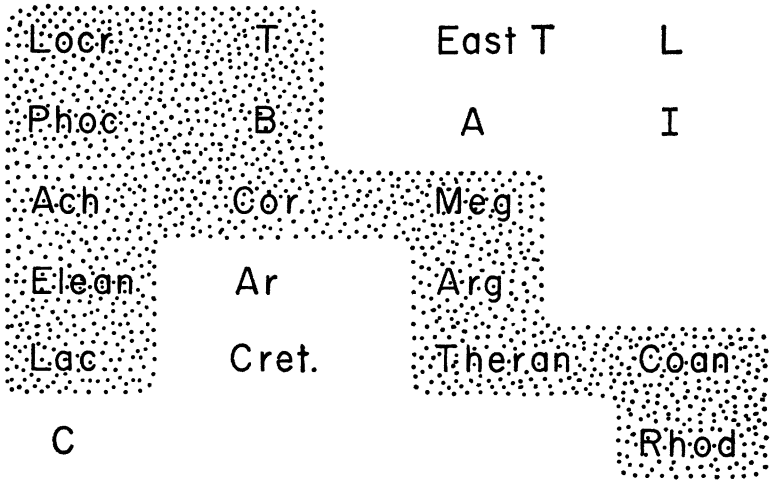

and then the other collocations. In the meantime two things happened: Cyprus was cut off from the mainstream of the Greek world (and independently developed *πε* in accordance with the NEG rule); and then the environment of $*k^w$ > [t'] was extended to include all front vowels.

depending upon which form we feel is the innovation. For though it is clear that PIE had **toi*, it is not clear that PG must have had **toi*: it is just as likely that PIE **toi* was replaced in PG by **hoi*, and that in certain dialects the pressure of the many *τ-* forms of the demonstrative operated to replace *οἱ αἱ* with *τοι ται*, thus recovering the PIE situation. *ὁ* could not pass to *τό* because of the homophonous neuter *τό*. Nonetheless on the whole it is best to adopt the standard view and assume that, though *οἱ* reached DN B, it reached DN at least only late, and failed to prevail there save in that area of DN which provided settlers to Crete.[28] Since Cretan is in general rather conservative, I presume that the DN choice of inherited *τοί* over newly introduced *οἱ* was effected only late, and that the final and total expulsion of *οἱ* from the DN realm failed to reach Crete, and as a result postdated both Dorian presence on Crete and in the Peloponnese. For the early spread of *οἱ* we can use our schematic map, but for the triumph of *τοί* we need the classical map.[29]



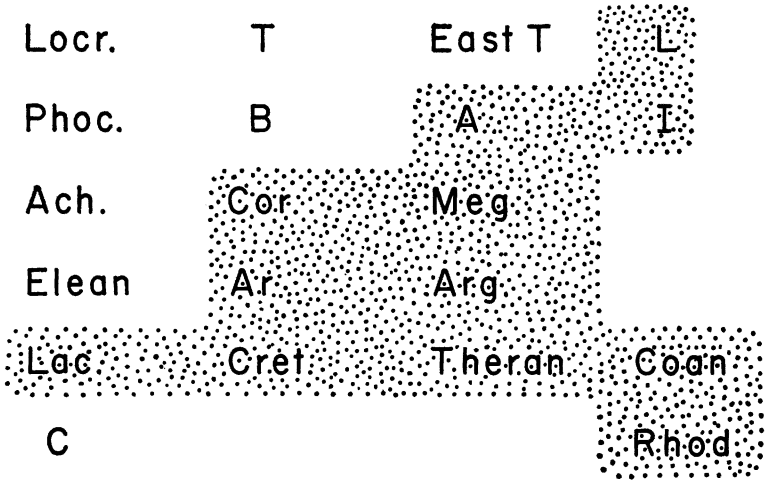

[28] Coleman (74–75) mentions the possibility of Cretan innovation in this matter. Such is indeed possible, and would simplify matters, but is probably unnecessary.

[29] Without wishing unduly to indulge in mentalistic and psychological explanations of purely linguistic phenomena, I find it difficult to explain the fact that Cretan alone of DN has *οἱ*, unless one assumes a conscious expulsion of *οἱ* as un-Dorian in the other areas of the Dorian world: one would expect that if one DN dialect has a given feature, one or another of the other DN dialects would have it as well. There are, e.g., the cases of *ἐνς* (Risch #12) and the distinction between *Doris mitior* and *Doris severior* in the vowel system. If I am right, the expulsion of *οἱ* will have taken place (after the




12) ἐν > ἐνς with accusative (Coleman #33, Buck #23)

We need the classical map for this development since the change took place only in Aegean-facing areas. It may indeed have begun in




settlement of Crete) at a time when speakers of DN became aware that other dialects existed, and that the people speaking them always used οἱ where they were accustomed to using both οἱ and τοί. They therefore expelled this intrusive and foreign οἱ in the interests of Dorian solidarity. This may be true also of other D features, particularly conservative ones, for it is to me a striking feature of D and one that requires explanation, that it is in its main outlines so monolithic, particularly in morphological matters.

Argolic and spread thence, or more likely in AI (Porzig 150). Coleman (88) regards spread as unlikely given the early date and favors independent innovation. Of course independent innovation is possible, but the unified area affected (see map) to me rather favors Porzig's idea of spread. In general ἐνς appears in those area of Greece which culturally were central and advanced during the archaic period. Risch's date is as usual likely to be correct.

13) $\bar{a} > \eta$ (Coleman #1, Buck #36)

Risch dates this change to between 1200–900 but clearly on linguistic (phonological) reasoning and not on dialectological grounds. Since $\bar{a}$ passes to $\eta$ only in one small area of Greece (AI), a small area which we know from other cases so far considered and others yet to come was linguistically very homogeneous (to a very late date), it could have taken place at any time (after the early passage of RR to :R—#9) and simply have failed to spread.[30] Its failure to spread was due to the fact that it was prevented from doing so by the presence of Ae speech in Lesbos and D speech in both the Peloponnese and Asia Minor. There is no need of a map to show the extent of this innovation.

This section has not been so satisfactory as the first in that less definite groupings of dialects seem to emerge. Apparently 9 (RR > :R) moved toward NEG, having originated either in SWG or SEG. 10 (*$k^{w}e$ > *te*) was relatively late—probably later than 9, at least in some areas of Greece—and was also relatively weak in that it failed to reach C and failed also to penetrate NEG even as much as 9 did. 11 (οἱ) was a pan-G tendency which failed to make headway in NWG which rejected it and retained the older system: it was in all probability relatively earlier than 10, and was certainly earlier than 12 (ἐνς) which requires Dorian settlement in the Peloponnese, and earlier, too, than 13 ($\bar{a} > \eta$) which, as we shall see, is later than, or approximately contemporary with, 14: *$pan\underset{.}{t}ia$ > [pansa] > [pãsa] > πᾶσα ~ πᾶισα. It is also highly restricted geographically, affecting as it does only AI.

[30] Of course this depends on what one means. The fronting of [a:] to [æ:]—a fronting like that seen in Boston English *car* (= [ka])—probably took place very early in SEG, but the identification of this [æ:] with inherited [ϵ:] could not have taken place until a new [a:] = /a:/ arose. And this happened only after /awa/ > /a:/ or [pansa] > [pãsa] > [pa:sa] = /pa:sa/.

One feature of this section, to which we will come back later, is that phonetic innovations (9, 10) failed to reach NEG, while the morphological innovation (11) faced resistance in NWG. B took a middle position, joining DN in 9 and 11, but Ae in 10.

It is perhaps interesting that the *ἐν* > *ἐνς* area (#12) includes, but is not coterminous with, the area in which *ρ* appears in *πρός* (#2), and furthermore includes the area in which /RW/ passed to /:R/ (Coleman #16, Buck 49–50). It is clear that these changes are late and are restricted to Aegean-facing dialects: they probably all originated in Ionia. It is further interesting that many of these same dialects have in common /e:/ (spelled *ει*) as the contraction product of *ε* + *ε* (and /o:/, spelled *ου*, from o + o), whether or not they had *ει* (and *ου*) as the result of compensatory lengthening from #9. Less impressive, but still interesting, is the fact that *Ποσει-* occurs in the sea-god's name in many of these dialects (Coleman 71), and that *Ζην-* appears in the genitive and dative of *Ζεύς* in some (Coleman #26, Buck 93). *Ποσει-* occurs also in Achaean and Ar, in the latter inherited, *Ζην-* (or *Ζαν-*) also in Elean. Homeric and generally cult influence seems likely, at least in these last two cases. The table displays the facts.

TABLE 1

| | *ἐνς* | *πρός* | :R | *ει* | *Ποσει-* | *Ζην-* |
|---|---|---|---|---|---|---|
| I | + | + | + | + | + | + |
| A | + | + | | + | + | + |
| Argive | + | + | + | + | + | |
| Theran | + | | + | + | + | + |
| (E)Cretan | + | + | + | | (+) | + |
| Coan | + | | | + | + | + |
| Rhodian | + | | + | + | + | |
| L | + | + | ? | | + | |
| Corinthian | + | | | + | + | |
| Megarian | + | | | ? | | |
| Laconian | + | | | | | |

Of more interest to me at least is #11 (*τοί*) which has the same geographical extension as #6 (*κα*) and #7 (*ὅκα*), if, that is, we choose to regard the consonant as the decisive factor rather than the vowel in the latter case. In both #7 and #11 we find an innovation common to all G failing to make its way in DN B. And, interestingly, there are at least two other cases in which we find DN B operating as a unit.

DN B #1 *πρόσθα* vs. *πρόσθε(ν)* (Coleman #37)

*πρόσθα* and other adverbs in *-θα* occur only in DN, though not always, for *ἔμπροσθε ὄπισθε* appear at Troizene and *πρόσθε* at Megara (Buck 104–5): for these last forms we can probably hold Attic influence responsible. *πρόσθε(ν)* etc. occurs in AI L. About ArC we cannot be absolutely sure, but Ar does have *θύσθεν* (Schwyzer 654.23) and *μεσακόθεν* (Schwyzer 664.7); Schwyzer (1939: 628) also mentions a *πρόσθε* which I have been unable to locate, *προσσθαγενές* (Schwyzer 661.33, 35), the only possible obstacle to our assumption of *πρόσθε* also in ArC, is too uncertain to provide counter-evidence. Unfortunately we have no evidence for B, but since it went with DN in #6 and #7 in lowering the final vowel, we may assume that it did so here as well. It was a tendency of NWG to lower final -/e/ in adverbial words, a tendency we see also with *γα* beside *γε* of other dialects (Buck 24).[31]

DN B #2 *πρᾶτος* vs. *πρῶτος* (Coleman #27, Buck #9)

As is frequently the case when dealing with DN B we are embarrassed by our ignorance of the PG form and are consequently unable to decide which is the innovation. Opinions differ widely on the history of these words (Schwyzer 1939: 595, Frisk 2.609–10), but it is at least clear, or should be in spite of Buck (94), that both words derive from a single ancestor, and that one group of dialects (or area of Greece) has innovated and the other preserved the original form: to ask that one group of dialects choose one variant (allomorph), another another is to ask too much. The more so since the dialectal lines are so similar to those drawn for *οἱ* ~ *τοί* and others. Further it must be the case that *πρῶτος* derives from **proatos* (probably not **prowatos*), and that *πρᾶτος* cannot so derive, at least not directly. It seems therefore most simple and economical to assume an earlier **πράατος* for *πρᾶτος*. This solution is elegant in its simplicity, but fails to get us completely out of the woods, for we are as ignorant as ever we were about what the earlier form was: we can easily motivate **πρόατος* (after *πρότερος*), but not **πράατος*, and the *etymologia difficilior* would seem to dictate that

[31] Schwyzer (1939: 628) is inclined, though reluctantly (cf. 627 n. 4) to identify the *-θα* of DN B with IE **-dhə* which *may* occur in *ἔνθα ἐνθάδε*. Clearly I feel that he is wrong in this, and that we need assume for PG only the suffix *-θε(ν)* in *πρόσθε*.

*πρόατος be an analogical reshaping of *πράατος, as indeed it may be. A number of considerations urge us to assume *proatos as the PG form: 1) we can do nothing with a *πράατος, can connect it with no other word in any IE language; 2) [r] notoriously has a lowering effect in many languages, and did so quite definitely (later) in the NW of Greece (Buck 23–24): it may have happened earlier in this word; 3) we have already seen elsewhere (#6, DN B #1) that in NWG there was a lowering of mid vowels in certain positions. It seems best to assume the same here also, and posit *proatos > *praatos > πρᾶτος for DN B. The question is still open, though, whether πρῶτος may not be an etymological reshaping of phonologically created *praatos. Since a discussion of this point would take us too far afield at present, we may leave it open for the time being.[32]

These two seem to be the only changes shared by DN B alone (in addition of course to Risch #6, 7, 11), and both involve the lowering of a mid-vowel. This is not much, but we shall see later instances of NWG features which B failed to adopt and NEG innovations which failed to reach DN or B.

## III

There seems little point in discussing in great detail Risch's items 14–16 since they are all recent developments: πάνσα (14) is an archaism wherever it occurs; -/ae/- > -a:/- (15) seems restricted to AI, though it has sometimes been supposed for ArC as well (Wyatt 1964: 179–80); the details of aorists to -ζω verbs (16) are so complex that little definite can be said about this matter.

### 14) πάνσα > πᾶσα ~ παῖσα (Coleman #13)

Both Risch and Coleman treat this change under the heading of developments involving *pantja, but clearly this is incorrect. Though

[32] The only shred of evidence I can concoct for the assumption that -/oa/- > -/aa/- regularly in PG and that therefore *proatos in T L AI ArC is analogically restored from regular *praatos is the word πρᾱνής 'with the face downwards' which seems to stem from *pro + ἄne:s; cf. Frisk 1.121, 2.594 and Chantraine 1968:97 for -ἄne:s. For πρό does not ordinarily experience elision, and we should expect -/oa:/- to develop to /ɔ:/ (*βελτίοα > βελτίω—Lejeune *Traité* 235). -/aa:/, however, would develop to /a:/ (to /ε:/ in Ionic).

**pantja* did indeed occur at some point in the prehistory of πᾶσα, that form was replaced, probably already in PG, by its phonological successor **pansa*. Simplification of secondary -/ns/- is late, as Risch holds, and is pan-Greek—Mainstream Greek as we shall label it below—and affects all areas save several cultural backwaters such as Crete, Thessaly, and Arcadia. That Argos failed to go along is perhaps surprising.

Risch (64) further holds that the change postdates #13 (*/a:/ > /ε:/) in AI, but this may not be the case. In the first place (and trivially), #13 applies in only a very small area of the Greek world and hence is irrelevant in most of Greece. Secondly, the change may have taken place, and probably did take place, at different times in different areas: it spread gradually, one imagines, and did not suddenly burst upon the scene. Thirdly, and most importantly, the passage of /a:/ to /ε:/ (ᾱ to η)—that is to say, the identification of [æ:] (< */a:/) with [ε:] (= η)—could not have taken place without a significant contrast between [æ:] and [a:]. [æ:] = /ε:/ was doubtless triggered by the development of a new /a:/. This new /a:/ may be precisely the [a:] which arose in AI as the result of the loss of nasalization in *[pa:sa], for the phonetic development (in AI) must bave been: *[pansa] > *[pã:sa] > [pa:sa]. Thus it is possible that PG */a:/ was identified with PG */ε:/ in AI *because* **pansa* > πᾶσα, and Risch's chronology is therefore incorrect. It is, however, also possible that /awa/ > /a:/ before [pã:sa] > [pa:sa] in which event Risch's chronology still holds good. Whatever the particulars, [æ:] = /ε:/, [pã:sa] > [pa:sa], [awa] > [a:] must have been all but contemporary in AI.

15) αε > ᾱ or η (Coleman #5)

This change is not particularly important because αε > ᾱ only in AI, and is late there: everywhere else it develops to η.[33] Apparently

[33] In fact the evidence is restricted to α-contract verbs of which we have secure examples only for AI and DN: hence Risch's uncertainty about ArC T L. L to be sure, has τιμαι (insc.) γελαις (? gramm.—cf. Thumb-Scherer 103), but the manner of declension in this dialect differs from that in AI DN. In fact I suspect that *-ᾱεις* < **-āyeis* and *-ᾱει* < **-āyei* had contracted to **-ais* and **-ai* already in PG. It was the newly created *-αεις -αει* that contracted to *-ᾶς -ᾷ* in AI but to *-ῃς -ῃ* in DN. Clearly L and T, since they did not rethematize these forms, did not experience this second round of contractions.

the normal tendency, the panG tendency, was for *αε* to contract to [æ:] and then merge with inherited [ε:]. This tendency was, however, blocked in AI because there already existed there an [æ:] fronted from inherited [*a*:]. The contraction product of [ae] must have been somewhat lower and perhaps backer than [æ:]—we may symbolize it by [a:], a sound sometimes heard in New England speech for words like *ask* (J. S. Kenyon, *American Pronunciation* 10th ed. 27, 176–184 [Ann Arbor 1952])—, and hence merged in AI with [a:] rather than with [æ:]. The interaction of panG and AI tendencies can be displayed as follows:

| | | |
|---|---|---|
| AI | 1) | [a:] > [æ:] |
| PanG | 1) | [ae] > [a:] |
| AI | 2) | [a:] > [a:] |
| PanG | 2) | [a:] > [æ:] |
| PanG | 3) | [æ:] > [ε:] |

16) Aorist to verbs in *-ζω* (Coleman #40, Buck #4)

Matters here are more than usually confused because we do not know the PG situation—indeed there may not have been one, since many of the verbs in question arose only late (Risch 73 note 22)—, and because analogy and borrowing seem to have been at work, What is really needed, as Kretschmer pointed out in 1909 (*Glotta* 1.30 note 1), is a thorough examination of the entire question.[34] Nonetheless we may be able to make sufficient headway for our purposes by oversimplifying slightly the data presented by Buck (115–16, *Classical Philology* 2 [1907] 251–52), Risch (73) and Schwyzer (1939: 737–38). There are three categories of dialects: 1) those with *-ξα* in all aorists of verbs in *-ζω*. Here are to be included T C, most of DN, and part of B. 2) Those dialects which have *-ξα* generally, but *-σσα* when a voiceless velar precedes: Coan, Arg., Ar. Arg. has extended this rule to include also the voiced velars. 3) Those dialects—AI L—which have only, or mostly, *-s(s)-* from verbs in *-ζω*. In these dialects the underlying form

[34] Such an examination must proceed with no preconceptions, and must concentrate on what the stem-form of the various words was felt to be synchronically in the various dialects with no regard paid to etymologies, real or fancied. I suspect that the picture will turn out to be even more complex than is currently thought.

of the verb contained a dental, regardless of etymology and etymologically related words. Clearly, too, in the dialects of 1) and 2) the underlying form contained a velar: it matters little how it came to have one or why it was regarded as having one. In Homer (and Hesiod) both types occur (Chantraine 1948: 340–41 = P. Chantraine, *Grammaire homérique*, Vol. 1), and we are probably justified in assuming that the non-Ionic element in Homer, thus in this case -*ξα*, is the archaism, and that when Homer agrees with I, he is merely using the everyday form normal in contemporary colloquial discourse.

If we may take the -*ξα* forms as original, then we find that case 2) is a modification of the original situation in that it replaces *-ks-* with *-ts-* when a (voiceless) velar precedes; and case 3) is a modification of 2) in that it replaces all *-ks-* with *-ts-* regardless of the preceding sounds. Hence we need the following chronology of changes, changes which apply in various places at various times.

| | | |
|---|---|---|
| 1) | -*ζω* = velar, hence -*ξα* | everywhere |
| 2) | velar . . . velar > velar . . . dental | Ar AI L Arg. Coan |
| 3) | -*ζω* = dental, hence -**tsa* | AI L (B) |
| 4 | * -*tsa* > * -*ssa* | Ar AI L |
| 5) | -/sa/ > -/ssa/ /V̆__ | AI L B |
| 6) | -/ss/ -> -/s/ - | Ar AI |

Rule 5) is inserted to account for the fact (Buck 116) that L B, as well as Homer, have *-ss-* in aorists such as *καλέσσαι ὀμόσσαι*: I believe that this development requires the presence of other verbs in *-ss-*, and such verbs can have arisen in any numbers (save from verbs like *τελέσσαι* from a stem **teles-*) only after the identification of -*ζω* as a dental. The B situation (with -*ττ-* from **ts*, but *ss* < *s*) is yet problematic.

The rules reveal, then, that C DN T (together with part of B) have retained the original situation—unless we wish to regard 2) as original—, while AI L, and in part B, have innovated. The innovating area is, as usual, completely in the south, and is at its most advanced in AI L, a situation which we have seen frequently enough before.

## IV

We can now move to a consideration of Risch's fourth category of isoglosses, that for which he was unable to establish a date. The

reason for this is that for two of them (18—*μι* inflection of contract verbs and 19—[r̥]) there is agreement among dialects for which his reasoning predicts disagreement, namely AI DN and Ae ArC; and in the other two (17—*μες* in first plural and 20—*έω* in the future) but one dialectal area (DN) stands apart from the others: when an innovation (or the retention of an archaism) is restricted to one dialect area, it can have taken place (all else being equal) at any time whatsoever and simply have failed to spread very far.

One isogloss, however, can be removed from this bundle at the outset: *[r̥] had developed already in PG to *ρα* or *αρ*, and there is no agreement between Ae on the one hand and ArC on the other, Four rules only are needed to account for the dialectal facts (Wyatt 1971a):

| | | |
|---|---|---|
| 1) | pre-Greek | *[r̥] > */ar/ ~ /ra/ |
| 2) | PG | $\begin{bmatrix}ar\\ra\end{bmatrix} > \begin{bmatrix}or\\ro\end{bmatrix}$ /__(C)Cu |
| 3) | Peloponnesian South G | /a/ > /o/ /__rC |
| 4) | Lesbian Aeolic | /a/ > /o/ / __labial |

Rule 1) states that already in PG PIE *[r̥] had developed an /a/, generally before the /r/, though sometimes after it. Rule 2) states that /a/ was rounded to /o/ when next to /r/ if the succeeding syllable contained a /u/: this rule accounts for *στόρνυμι* for **starnumi*, as well as isolated cases such as the personal name *Θροσιούστροτος* (Bechtel 1921:25; F. Bechtel, *Die Griechischen Dialekte*, Vol. I). Rule 3) is merely SWG 2) above. Rule 4), the most problematic, accounts for Alc. /*δρόμ*[*οισα* (possible in 306 fr. 14 ii 17) "run" and *τόμοντες* (129.15) 'having cut' among others. Thus we need no longer to consider developments involving [r̥] in discussions of the interrelationship of the G dialects. With the other three isoglosses matters are not so straightforward.

## 17) *-μεν* in the first person plural active (Coleman #43, Buck #11)

It was a strong tendency of PG to replace the inherited **mes* of the first plural active ending of the verb with a new form **men*, possibly in origin the secondary ending. That **mes* was originally everywhere present in G seems clearly indicated by Hom. *-μεσθα* beside *-μεθα* in

the first plural middle. And just as clearly DN resisted the replacement of -μες with -μεν and is therefore highly conservative in this regard. The question then facing us is: when did the rest of G opt for -μεν? Unfortunately we cannot answer that question, but since the innovation was so powerful as to reach all of G (we think, for about B we do not know—Thumb-Scherer 18), it would seem to have been early, earlier possibly than the innovations mentioned above in conjunction with #7 and 11. The reason that DN retained -μες may well be that the infinitive ending -μεν in athematic verbs (#4) had already been introduced there and offered an obstacle to the spread of first person -μεν. This cannot, though, be the entire reason, for as Coleman points out (76), considerations of homonymy did not affect T at least which has -μεν both in the first person plural and in the infinitive, both athematic and thematic.

18) Inflection of durative stem of contract verbs (Coleman #39, Buck #65)

Such verbs are inflected thematically in DN B AI, athematically in T L ArC (Buck 123–24). Sorting out developments with these verbs is most difficult, and Risch may be right (71–72) in feeling that both thematic (-έω) and athematic (-ημι) inflections were known in PG. The problem is complicated by the fact that we here find ourselves at the intersection of phonological rules (loss of */y/ and resulting contraction) with a morphological tendency (thematic inflexion of generally denominative verbs). Analogy may have restored what phonology destroyed. A few remarks may be apposite. 1) To label the declension in ArC L T athematic is misleading if it conjures up pictures of τίθημι: the third singular active is φιλει in L (Sa. *PLF* 1.23) τιμαι (Schwyzer 634 A 35) στεφανοι (Schwyzer 647.31). 2) ArC and L T do not completely agree, for the infinitive is thematic in L (T is ambiguous), athematic in ArC. 3) All G tended to inflect the optative athematically. 4) Ar ἀψευδήων (Schwyzer 665 C 4) T κατοικείουνθι (*IG* IX 2 514.3) Sappho's ποθήω (*PLF* 36) and ἀδικήει (*PLF* 1.20) show that there existed also a long vowel thematic conjugation (other forms in Buck 124–25). From this last fact we may conclude that the final vowel of the stem was long, and that the ending -μι of the

first singular may merely replace *-ω*. It is my belief that developments in ArC and L, though differing in certain details, more closely represent the phonological tendencies of G, while DN and AI have reanalyzed the result seen in the other dialects and restored the original PIE inflexion. In any event I agree with Risch that the agreement of AI and DN in a pan-Greek trend (extension of thematic conjugation at the expense of athematic) cannot be accidental. T L and ArC were out of the mainstream of Greek linguistic progress apparently, and hence failed to share in this development.[35]

Clearly the above exposition, implying that *-ημι* (or *-ήω*) is the older form, is not an argument and, in order to be accepted even tentatively, requires that we isolate a number of other cases in which the same or a similar dialectal configuration emerges. Since AI and DN, over all or over part of its extent, will agree, we must date these changes relatively late, thus clearly after the settlement of DN speakers in the Peloponnese. For convenience we may label those dialects which share in the various innovations Mainstream Greek (MG).

MG of course always existed, and many of the features already discussed (e.g., /mm/ > /:m/—#9) which failed to influence certain areas belonged to it. These, though, were early and can be kept separate from the cases about to be discussed. Others, though late all right, affected all of Greece to greater or lesser extents: here we may think of the development of a definite article (Buck 100) and the use of adverbs as prepositions tending to "govern" one or more cases. These latter are important, but do not of course serve to isolate linguistically residual words and tendencies. I think here rather of cases such as the

[35] Clearly my treatment of this isogloss is unsatisfactory on linguistic grounds, but it will unfortunately have to suffice for the present, and is in any event sufficient on dialectological grounds. For a portion of what I feel actually happened cf. n. 33 above. The first stage in the G developments, it seems to me (to restrict myself to *e*-contracts), was that **-eyō* was analogically changed to **-ēyō*, probably after the *ā*-stems, though also possibly after the future and aorist **-ēsō*, **-ēsa*. After the loss of **-y-* contraction took place, yielding **-ēō *-eis -*ei *-ēomen *-ēte *-ēonti* (> **-ēmen *ēte *-enti* at least in ArC T B). This system was apparently preserved in ArC, and L innovated only in (occasionally) replacing **-ēō* with **-ēmi*. This caused the conjugation to appear much like that of the thematic optative, whereupon the first singular of *ā*-stems developed to *-aimi*. In MG, however, **-ēō *-ēomen*, etc., developed to **-eō *-eomen*, etc., and since in those dialects **-eis*, **-ei*, and particularly **-e:te*, differed from *-ηις -ηι -ητε*, because there the distinction between [e:] and [ε:] was preserved, the verbs were rethematized to *-eō -eeis -eei*, etc.

use of ἐξ before consonants as well as vowels and the passage of εο to ιο. There are a number of such cases—I probably have not collected them all—and there may well be some question whether my interpretation of developments is correct in individual cases. The features I shall discuss, though, do tend to show that T ArC, and to a lesser extent B L were not part of the innovating areas of Greece during, I suppose, the archaic period.[36]

MG 1) ε > ει by compensatory lengthening (Coleman #2)

When PG */e/ was lengthened before a nasal or resonant upon the loss of */s/ or */ɣ/, the result must have been a [e:] different in quality from the [ε:] inherited from PIE. I consider that it was characteristic of MG to preserve this distinction, and that it was a mark of cultural backwaters to merge [e:] and [ε:] in /ε:/, thus failing to preserve a vocalic distinction. Because Cor. and Meg., as well as Loc. and Phoc., preserve the distinction, all of DN must at one time have been part of MG, and only later become isolated.[37] This means that T B L and ArC were the dialects out of the mainstream. It is interesting that they also have -ημι or -ήω in contract verbs.

MG 2) Apocope of prepositions (Coleman 95, Buck 81–82)

I here speak only of those cases which are not due to haplology, for haplological forms, such as κὰ τόν < κὰτ τόν < κατὰ τόν and πὸ τόν < πὸτ τόν < ποτὶ τόν, occur in many dialects. I think rather of Ar πε from πεδά in πε τοῖς Foικιάταις (Schwyzer 1923: 661.6) and Hom. κὰκ κεφαλῆς (*Il.* 18.24) and B κὰγ γᾶν (*IG* VII 2407.9—Thumb-Scherer 46). Such forms occur in T B L Ar(C)? Hom. Lac. El., and were clearly replaced by the longer forms in the rest of Greece. I believe that in fact the shorter forms of some at least of the prepositions, such as παρ κατ ἀν (or ὀν—below MG 11), represent the PG shape of these words, but this is not an assumption necessary for the present argument. We need hold only that the longer forms were favored in

[36] I have in this section relied on handbooks, and have not made an independent search of all inscriptions for new data. Hence there may be insufficiencies in my account.

[37] I speak figuratively when I say isolated. All I intend is that DN [e:] > /ε:/ independently of similar developments in ArC and Ae. It is quite likely that the merger of [e:] and [ε:] in *Doris Severior* was due to SWG substrate influence.

MG and the shorter felt to be infra dig. or (in the case of Homer) archaic.

MG 3) Preservation of *πεδά* (Coleman #32, Buck #67)

Coleman (101) may be correct in assuming that *πεδά* is an innovation in the face of inherited *μετά* (cf. also Frisk 2.385), but the historical relation of these words is unimportant: only their distribution counts. *πεδά* occurs as a living form (Buck 107) in L B, and hence *a fortiori* in T, though it is not attested there; in Ar, and most likely in C; it occurs also in Arg. Cret. Ther. It was preserved, no longer understood, in compounds in Rhod. Coan Calymnos Meg. Sicily, a fact which proves that it was once known all over the Greek world, though we have no proof for this assertion for AI. It was, though, given up in those areas of Greece which were culturally central in the archaic period.

MG 4) Demonstrative (Article) used as relative (Coleman #49, Buck 101)

It is clear enough that *ὅς* (< **yos*—Frisk 2.434) is inherited from PIE (cf. Skt. *yaḥ*), and that it is the expected form of the relative. Nonetheless in certain out of the way places, and in Ionia, not an out of the way place, hence probably in most of Greece, there arose the habit also of using the demonstrative pronoun as a relative. In most of Greece this tendency was so resolutely put down that no trace of it remains, but we do have examples from ArC T B L Hom. and I. It is to be noted that it occurs only in those dialects which have *οἱ* in the nominative plural: Heraclean and Cyrenaean examples represent later independent developments since neither Laconian nor Theran, their mother dialects, show any trace of the demonstrative used as a relative; wherever else it occurs in DN it is late, and not part of the same development with which we are here concerned.

MG 5) *ηϝο* > *εο* (Coleman #6, Buck 91–92)

The tendency here was to shorten the long vowel in hiatus with or without compensatory lengthening of a succeeding short vowel.

T B L Ar(C)? (archaic forms in) Homer El. were not affected by this change, C perhaps only trivially so in that there -/w/- remained until quite late.

MG 6) εο > ιο > εο (Coleman #4, Buck 21–23)

There was a tendency in all of Greek for [e] to be raised to [ɪ] (*vel sim.*) before /o/ such that it tended to merge with earlier [i] in that position. That the tendency affected all of Greece seems proved by the subjunctive ἴω from εἶμι 'to go' for which we should expect *ἔω (< *eyo). Here the phonological tendency was supported by the morphological fact that the root of this verb was /i/. A similar morphological pressure, but in the opposite direction, was felt also in words like [wetɪos] < *wetehos < *wetesos, and the [ɪ] was identified with the older /e/ of other forms of the paradigm, and did not pass to /i/. In certain areas, though, the phonological rule was allowed to operate without interference: (East) T B L C Cret. Lac. I regard considering morphological matters innovatory, and allowing phonology to operate unchecked conservative.

MG 7) ἐξ > ἐκ/__C (Coleman #18, 96; Buck 83–84)

In most areas of Greece ἐξ appeared before vowels, ἐκ before consonants. This, however, was not the original situation, for ἐξ appeared in all environments in PG as is proved by ἔσχατος 'farthest' < *eks-katos (Chantraine 1968: 380) which occurs even in AI. In MG. however, ἐξ was simplified to ἐκ before consonants, perhaps after the analogy of ἐν ~ εἰς, and perhaps, too, because ἐξ/__C tended to pass to ἐς and thus become homophonous with ἐς < ἐνς/__C. It is interesting to note that those dialects in which ἐκ failed to develop (T B ArC Cret., in part Loc. Phoc.) are for the most part those dialects which did not develop ἐνς with accusative (Risch #12—ArC T B Loc. Phoc. Aet.—Coleman 87). Clearly the two developments are connected.

MG 8) νυ as a particle or demonstrative (Coleman #30, Buck #44)

ὄν- in the meaning of more general ὅδε occurs in T (τόνε Schwyzer 578 A 9) Ar ταῖννυ (Schwyzer 657.30) C τόννυ (Schwyzer 682 16.1),

and *νυ* as a separate particle occurs in B (Schwyzer 523 G 165) C (Schwyzer 683 6) Hom. Clearly it is an archaic feature in those dialects and was early replaced everywhere else.

MG 9) *πτόλις* (Buck 61)

The general tendency of Greek, whatever the details of etymology and pronunciation (Schwyzer 1939: 325), was to use *πόλις*, the shorter form and not *πτόλις*. Only backwaters like T ArC Cret. and (archaizing) Homer continued to maintain *πτόλις* (and in part *πτόλεμος*) in use.

MG 10) Third singular subjunctive active in *-η* (Buck 119)

Greek inherited from PIE a third singular subjunctive ending of the active voice in *-η* (Schwyzer 1939: 791), a form which nearly everywhere was replaced by *-ηι* on the analogy of the indicative *-ει*. Only in T B Ar(C?) El. was the older ending preserved, at least in part.

MG 11) Preservation of *ὀν* (Buck #63)

Only in a few dialects (T L ArC) was *ὀν* preserved at the expense of innovative *ἀνά* (< **ὀνά*). It matters little in this regard what the relation of these forms to each other was.[38] It is interesting, moreover, that *ἀπύ* appears in these same dialects, thus suggesting that it is the more archaic form and that possibly Myc. *a-pu* and ArC *ἀπύ* may be archaisms and not the output of SWG rule 1).

MG 12) Genitive singular *-οιο*

Only arch-conservative T and archaizing Homer preserve this form which experienced contraction to /ō/ everywhere else.

It would be possible to display all these archaic features on a map, but it would consume space, and a table will do just as well. The

[38] There are, it seems, two possibilities. If *ἀνά* is to be compared directly with Avestan *ana* OP *anā* Goth. *ana* OE *on*, then the PIE form must have been **on(a)*, and this **on(a)* must have been assimilated in MG to *ana*. If, though, *ὄν* is to be compared with Skt. *ánu* 'entlang,' then we are free to assume: **anu* > **onu* (by assimilation of lip-rounding) > *on*, *ἀνά* again will have arisen from **ona* with secondary -/a/ as in other prepositional words like *παρά κατά*.

TABLE 2

| | Archaic Features | T | C | Ar | B | L | Hom. | Cret. | Lac. | Arg. | El. | I | Other Rhod. Coan Ther. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Compensatorily lengthened /e/ > η | + | + | + | + | + | | + | + | + | + | | |
| 2 | Apocope of Prepositions | + | ? | + | + | + | + | + | + | | + | | |
| 3 | πεδά | ? | ? | + | + | + | | + | + | + | | | |
| 4 | Demonstrative as Relative | + | ? | + | + | + | + | | | | | + | |
| 5 | ηο remains | + | + | + | + | + | + | | | | + | | |
| 6 | εο > ιο | + | + | | + | + | | + | + | in part | | | |
| 7 | ἐξ before consonants | + | + | + | + | | | + | | in part | | Phoc. Loc. | |
| 8 | νυ | + | + | + | + | + | + | | | | | | |
| 9 | πτόλις | + | + | + | | | + | + | | | | | |
| 10 | -η in subjunctive | + | ? | + | + | | | | | | + | | |
| 11 | ὀν | + | + | + | | + | | | | | | | |
| 12 | -οιο | + | | | | | + | | | | | | |
| | Total (Maximal) | 12 | 11 | 10 | 9 | 8 | 6 | 6 | 4 | 4 | 4 | 1 | |

results are, I think, scarcely surprising, for we have known all along that T ArC were backwater dialects, and that B L show a number of conservative tendencies. The Homeric figure would have been a good deal higher (probably) had it not been for the very strong influence which contemporary I exerted on his language.

20) *-σέω* in the sigmatic future (Coleman #41, Buck #12)

Early, and probably contemporary with #17, is the creation of the "Doric" future which occurs in all DN dialects for which future forms are attested. A (*φευξοῦμαι* Eur. *Med.* 604, *πλευσούμεθα* Thuc. 1.143, *πνευσεῖται* Ar. *Frogs* 1221) and Hom. (*ἐσσεῖται Il.* 2.393), to be sure, have such forms, but they are isolated and occur only in the middle of verbs which have active presents (Schwyzer 1939: 785). We are free to imagine that this is where it began, and that (for some reason) an *-es-* was inserted between root and ending in these forms as in liquid and nasal verbs (Schwyzer 1939: 786), and that then with the loss of *-s-* contraction took place: **pleuésomai* > **pleuéomai* > **pleuoûmai* (in A).[39] When *-s-* was analogically restored, *πλευσοῦμαι* resulted, a form (or type) which was then in general brought into line with other futures by utilizing the regular *-se/o-* thematic future. In DN, however, this (perhaps old) type, supported by futures like *βαλέω* from *βάλλω* and particularly *θανέομαι* from *θνήσκω*, spread so as to embrace all futures. It is perhaps a toss-up to decide whether DN has here innovated or

[39] That -/s/- is not original in these forms is proved by cases like A *κλαύσομαι* (*κλαυσούμεθα* Ar. *Peace* 1081) which should have, by the regular phonological rules of G., appeared as **κήομαι* (cf. *ἔκηα* from *καίω* 'burn' < **ekausa* and Kiparsky *Language* 43 [1967] 623–29). My guess is that the "Doric future" had its origin in the middle of verbs in -/w/-. In order to account for AI *κλαυσούμεθα* we must assume the following:

| | present | future | aorist | |
|---|---|---|---|---|
| 1) | klawyō | klawésomai | eklausa | : PG |
| 2) | klawyō | klawéomai | eklāa | : PG with loss of -/s/- |
| 3) | klawyō ~ klaiwō | klauséomai | eklausa | : PG with -/s/- restored after the root as seen in the present |
| 4) | *κλαίω* | *κλαύσομαι* | *ἔκλαυσα*: | *-σομαι* after the active of other verbs in *-σω* |

The only difference between DN and the rest of G is that DN preserved stage 3) and extended it—because more fully marked as a future—to other verbs originally displaying *-sō* like *πράξω δείξω*.

been conservative since all the rest of G may have innovated in another way. Nonetheless it does appear that we must consider the extension of *-eo-* to the future active of sigmative futures a NWG innovation. The fact that A and Hom. show traces of what may have been the original situation in no way forces us to assume that the change was late: I prefer to consider it chronologically on a par with the retention of *-μες*.

Two more DN features may be mentioned here.

DN 1) Third plural athematic *ἔϑεν* (Coleman #45, Buck #40)

In most G dialects the third person plural active of athematic verbs was remodeled after the third plural of thematic aorists and the imperfect of the verb "to be." It matters little in this connection whether the result was *ἔδωκαν* (Phoc.—Buck #53.5), *ἔδοσαν* (AI L—Alc. *PLF* 50.4), *ἀνέϑεαν* (B—Schwyzer 1923: 440.11), *κατέϑιjαν* (C—Schwyzer 679.27), *ὀνεϑείκαεν* (T—Schwyzer 566 2.4): all these dialects show a remodeling of the third plural active form of the athematic aorist. Only in D dialects (and in Homer) did the inherited form maintain itself: it was replaced even in N.

DN 2) *αἰ τις κα* (Buck #15)

This was the normal word order in DN (and sometimes in B, such that we might label this DN B #3) as opposed to AI *ἐάν τις*, Ar *εἰ δ' ἄν τις* C *ἤ κέ σις*, L *αἴ κέ τις* (Buck 140). It is impossible to decide which of these orders is the original, though again it is more likely, given the agreement among all non-DN dialects, that DN has here innovated.[40]

In this section, then, we have found one new dialectal entity, Mainstream Greek, and have been able also to add to the number of NWG characteristics which we saw above in DN B. There are now

[40] Other NWG features are later and do not affect even D. NWG 3) *-οις* in third declension nouns and adjectives like *πάντοις* (Coleman #25 Buck #26), a later low-class simplification of the grammar like that seen in NEG 4 below and the next footnote. NWG 4) *ε* > *α* /__*ρ* (Buck #25) as in *φάρᾱι* (Schwyzer 1923: 321.2). NWG 5) *τέτορες* for *τέσσαρες* (Coleman #21 Buck #13) does include D, and is generally held to be an archaism, inherited from PIE **k*$^{w}$*etwores* seen in Skt. *catvārah*.

nine of them which I list below, including the extent of the spread of the feature and whether it is innovatory or not.

| | | | |
|---|---|---|---|
| 1) | (ὅ)κα < (ὅ)κε | (Risch #6, 7) DN B | minor phonological change |
| 2) | -μεν in infinitive | (Risch #8) DN BTL | archaism (?) |
| 3) | τοι nominative plural | (Risch #11) DN B | archaism |
| 4) | πρᾶτος | (Coleman #27) DN B | minor phonological change |
| 5) | -θα, -τα adverbs | Coleman #37) DN B (TL in ὅτα) | minor phonological change |
| 6) | -μες first plural | (Risch #17) DN | archaism |
| 7) | -σέω future active | (Risch #20) DN | innovation (?) |
| 8) | ἔθεν ἔδον | D | archaism |
| 9) | αἰ τις κα | DN | innovation (?) |

In this list we find only three possible innovations, several minor phonological changes, and three archaisms, cases in which innovations instituted in the rest of the Greek world failed to penetrate the NW corner. What is more, all these archaisms are morphological, as indeed are most features on the list, and we may therefore conclude that NWG was morphologically conservative, particularly in the verbal system. This is all the more important since, when we remove the innovations of other dialects, those dialects are going to appear more and more like DN. Thus Risch's statement (71) that at older periods of the language D and Ae looked more alike is true, but is not significantly true, for it would be true of any other dialect area one cared to select and compare with D.

## V

Furthermore, though Risch isolated SG and NWG features, he completely ignored innovations and archaisms which would have made it possible for him to identify features pointing to a NEG linguistic area. Had he done so, he might have found rather more differences between NEG and NWG even at earlier stages of the language. We will complete the picture of areal linguistic features by listing here NEG features, those features namely which Buck (147–148) attributes to Ae.

NEG 1) Perfect Participle *-ων, -οντος* (Buck #58)

It is perhaps surprising (Coleman 68–69) that this change did not take place in more areas of the Greek world than it did. As it is, it took place in Ae, north I and (occasionally) Homer (Buck 118). It is a simplification of the grammar akin to Eng. *foots* for *feet*, and like *foots* must continually have been created by immature learners of the language. Only in NEG was it not systematically corrected.

NEG 2) *ἴα* for *μία* (Buck #52)

The preservation, in whatever form, of the PIE demonstrative **i* (seen in Lat. *is*) is an archaism shared by Cret. (Schwyzer 1923: 179 VII.23, VIII.8,), C (*ἴν · αὐτῇ . αὐτήν . αὐτόν . Κύπριοι*—Hsch.), Messenian (? *IG* V 1 1390, 206), Homer (*Il.* 6.422, etc.). MG had discarded it. The semantic development "that" > "that one" > "one" is, however, purely NEG, as is the replacement there of *μία* by *ἴα*.

NEG 3) *ι* > *ε*/C*ρ*__C (Buck #56)

Buck's formulation reads simply *ρε* = *ρι* (147), but in fact the examples he adduces (25) all show a consonant preceding the *ρ*. This suggests that we should restrict this tendency to tautosyllabic *ρ*, a restriction borne out, e.g., by T *Ἀριστίδην* (Schwyzer 1923: 597) and *Ἀριστονόοι* (Schwyzer 590.1). Examples occur in all Ae dialects, and we may be justified in assuming that when L has *ρι* (e.g., in *κρίννω* Schwyzer 620.28), it does so under I (or MG) influence. If this change is innovatory, it is a minor innovation: I rather feel that a phonetic tendency put down elsewhere went on unchecked in NEG.

NEG 4) dative plural *-εσσι* (Coleman #25, Buck #61)

That *-εσσι* is an innovation from the IE point of view is quite clear, but that it is a NEG innovation is not so clear, for it appears also in N (Phoc. E. Locr. Elean), D (Cyrenaean, Corinthian colonies) and Homer (Coleman 96–97, Buck 89). It seems rather to represent a tendency on the part of G speakers to renew and render morphologically clear the dative plural of consonant stems, a tendency seen also in the spread of *-οις* in N (above, n. 40). *-εσσι* must have been more common in

earlier times, but was discarded, perhaps as low class, nearly everywhere. Only in the remote NE of the G world did this innovation take root.[41]

NEG 5) ι > i̯/__V (Buck #53)

It is characteristic of T (πόλλιος—Schwyzer 558.13, κῦρρον—Schwyzer 590.20) and L (πέρροχος Sa. *PLF* 106, μέτερρα Sa. or Alc. *PLF* 2 p. 292) that post-consonantal /i/ tended to become [i̯] and to lose syllabic value with concomitant lengthening of the preceding consonant (Buck, 26, Schwyzer 1939: 274). In so doing these dialects are recovering an ancient process whereby PIE clusters involving [i̯] were simplified (by palatalization) to affricates in the stops and geminates in the resonants. We are likely to be correct if we assume (with Nagy 107–12: G. Nagy, *Greek Dialects and the Transformation of an Indo-European Process* [Cambridge 1970]) that the change [i] > [i̯]/__V was originally of wider extent, but that in all dialects (save T and L) depalatalization (i.e., [i̯] > [i]) took place at a relatively early date. Only remnants (Homeric scansion: δῆμον for δήμιον *Il.* 12.213, Αἰγυπτίη = ⏑⏑– *Od.* 4.229; A βορρᾶς, στερρός < βορέας, στερεός) of the earlier situation survive. Thus we are dealing with an archaism: depalatalization (Nagy's term) did not reach T and L, though it affected all the rest of G. It is interesting that degemination of resonants (Risch #9) likewise failed to reach T and L.

NEG 6) τ > ϑ/ν__ in third plural of verbs

A development [t] > [t']/*n*__ is not unusual (cf. Skt. *panthāḥ* "path" cognate with G πόντος, Lat. *pons*), but occurs in G only in T and B.

[41] There is no need to go through great gymnastics in order to explain the origin and spread of -εσσι and to suppose -οισι as the origin of this form (cf. Schwyzer 1939: 564). It doubtless arose where it is frequently seen, namely in ϝέπεσσι ϝέτεσσι and spread from there—already in PG—but was generalized only in NEG PG at the expense of the inherited forms. -εσσι contains an extra -/s/- from the point of view of G as against e.g. πόλισι, for the stem was ϝεπ(ε) + ending (-ος -ι -ων -σσι). In all other oblique cases of *s*-stem nouns, though, the ending began with a vowel after -/e/-, and as a result another -/e/- was "reintroduced" into the dative plural, thus giving ϝεπε-εσσι. Thence of course it spread, in those areas of Greece where it caught on, because of its great utility in preserving the morphemic constitution of words (like **possi*) whose root had disappeared because of the morphophonemic rules of Greek.

Nor indeed does it occur in the participle even in those dialects, so that we must restrict the environment morphologically as well as phonologically. It seems to me impossible to explain this development without assuming that [t] > [t'](= /$t^h$/) in one single phonetic environment and that it was then understood morphologically as the mark of the morphological category in which that phonetic environment occurred. I feel in fact that [nti] passed to [nt'i] in the third plural active primary ending of verbs, and that [t'] was then perceived as the mark of the third plural and hence spread to all other third plural endings (data: Buck 112–14). It may well be that this development was the NEG response to the SG tendency towards palatalization of /t/, and that this palatalization in fact originated in the third plural (cf. J. Jensen, *Acta Orientalia* 26 [1962] 133–45, who supposes something similar for Hittite). It spread to all [ti] only in ArC and AI L.

NEG 7) [ε:] > [e:] (Coleman #2, Buck #32)

The raising of η to ει ([ε:] > [e:]), anticipatory of later G developments, took place only in T and B (Buck 25). It is clearly innovatory, but is a rather minor innovation. It probably began after L was already in the SG sphere.

All of the above required discussion, however brief, because some of them at least have the appearance of innovations peculiar to NEG. All other important features mentioned by Buck (147–148) are archaisms, and indeed are for the most part features of PG: we need not include them in our final list of NEG features.[42] Again I include the extent of the feature and its nature.

[42] Other NEG characteristics include:
NEG 8) (*$k^we$ > *pe*) = Risch #10.
NEG 9) The use of a patronymic adjective rather than the genitive singular of the father's name or a patronymic noun (Buck 134–35). That this is an archaism rather than an innovation is shown by the Myc. situation (Vilborg 151).
NEG 10) *ρο* = *ρα*. This is not an isogloss peculiar to NEG in the words in which it appears (cf. Wyatt 1971a).
NEG 11) *Θερσ-* = *Θαρσ-* (Buck 45). Ar also shares the retention of *Θερσ-* at least in proper names, and ArC and L also have *κρετ-* for *κρατ-* (L *κρέτος-* Alc. 141.3, ArC in personal names). The preservation of the expected *e*-grade (Chantraine 1968: 423–4, 578–79) is an archaistic feature given up by MG.
In the following cases B has innovated either with the rest of Greek or with DN alone.
NEG 12) (retention of */mm/) = Risch #9.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1) | perfect particle -ων | (Buck #58) | T | B | L | low class innovation |
| 2) | ἴα for μία | (Buck #52) | T | B | L | (low class) innovation |
| 3) | ι > ε/Cr__C | (Buck #56) | T | B | L | archaism |
| 4) | dative plural -εσσι | (Buck #61) | T | B | L | low class innovation |
| 5) | ι > i̯/__V | (Buck #53) | T | | L | archaism |
| 6) | /t/ > /tʰ/ in third plural | (Buck #33) | T | B | | minor innovation |
| 7) | [ε:] > [e:] | (Buck #32) | T | B | | minor innovation |

Numbers 6) and 7) are relatively late, and if they are removed, there is only one real innovation in the list, the replacement of μία with ἴα: the other two innovations are not restricted to NEG, but were low class simplifications of the morphology which sprang up in many areas of the Greek world, but which were put down elsewhere. For the rest NEG was highly conservative, particularly in the phonological sphere. It was as conservative phonologically as NWG was conservative morphologically. Indeed if one were to combine NEG phonology with NWG morphology, one would come very close to reconstructing PG. Almost all innovations began in the south.

## VI

It is now at last time to sum up all the previous sections and try to reach a final conclusion about the development of the G dialects. We have, in the body of the text, discussed a large number of linguistic features, not all of which are relevant to a decision concerning the

NEG 13) ἀγρέω = αἱρέω This isogloss simply states that αἱρέω did not reach some of the NE of Greece, for ἀγρέω occurs widely (Coleman 100).
NEG 14) (-μι inflection of contract verbs) = Risch #18.
NEG 15) (preservation of ὅν) = MG #11.
NEG 16) (preservation of ἀπύ) cf. MG #11.
NEG 17) (preservation of κε) = Risch #6.

B and L share the next two features in common.

NEG 18) (-/ss/- in ἐκάλεσσα) (cf. Risch #16). This innovation was shared by all SG as well, and is therefore not a NEG feature. It was almost inevitable in L, but the B development is obscure (to me).
NEG 19) (preservation of πεδά) MG #3.

T and B share a few features which either did not reach L or were discarded there.

NEG 20) (-μεν as thematic infinitive) cf. Risch #4.
NEG 21) (γίνυμαι for γίγνομαι) In fact this is the form one would expect in PG from PIE *gignomai (cf. *onoma > ὄνυμα), but in all dialects save T and B the /o/ was restored after the -/o/- of other thematic forms.

development of dialectal differentiation in Greece. It is, for instance, clear that MG (see above, pages 607–13) together with Risch #18 (*-έω* for *-ημι*) and Aegean Greek (see above, page 599) together with Risch #12 (**ens*) are, because late, of no importance for earlier dialectal (areal) differences. **pansa* > *πα(ι̂)σα* likewise is late and can be included in MG. Furthermore all innovations restricted to a single dialectal entity such as Risch #13 (*ᾱ* > *η* in AI) and all the SWG changes catalogued above (see above, pages 584–90) may be omitted in our final formulation since they cannot affect discussions of dialectal affinities. The following list, though still long, contains all the

TABLE 3

| | | | AI | Ar | C | L | T | B | D | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **ti* > *si* | (Risch 1) | + | + | + | + | | | | |
| 2 | *πρός* | (Risch 2) | + | + | + | + | | | | |
| 3 | /ss/ > /s/ | (Risch 3) | + | + | ? | | | | | |
| 4a | infin. *-en* | (Risch 4) | + | + | + | | | | | |
| b | infin. *-ai* | | + | + | + | + | | | | |
| 5 | *ai* > *ei* | (Risch 5) | + | + | | | | | | |
| 6a | *ἄν* | (Risch 6) | + | + | | | | | | |
| b | *κα* | | | | | | | + | + | + |
| 7a | 'when' *ὅτ'* | (Risch 7) | + | + | + | + | + | | | |
| b | 'when' *-α* | | | | | | + | + | + | + |
| 8 | *βολ-* | (Risch 8) | + | + | + | + | | | | |
| 9 | **tu* > *su* | (SEG 1) | + | + | ? | + | | | | |
| 10 | *ἱερός* | (SEG 2) | + | + | + | + | | | | |
| 11 | *εἴκοσι* | (SEG 3) | + | + | ? | + | | | | |
| 12 | *-κόσιοι* | (SEG 4) | + | | | + | | | | |
| 13 | *-οισι* | (SEG 5) | + | | | + | | | | |
| 14 | *RR > :R | (Risch 9) | + | + | ? | | | + | + | + |
| 15 | **k$^{w}$e* > *te* | (Risch 10) | + | + | | | | | + | + |
| 16 | *οἱ* for *τοί* | (Risch 11) | + | + | + | + | + | + | | |
| 17 | *πρόσθα* | (DNB 1) | | | | | | + | + | + |
| 18 | *πρᾶτος* | (DNB 2) | | | | | | + | + | + |
| 19 | *-μεν* | (Risch 17) | + | + | + | + | + | ? | | |
| 20 | *-σέω* | (Risch 20) | | | | | | | + | + |
| 21 | *-αν* for *-ν* | (NWG 1) | + | + | + | + | + | + | | |
| 22 | *αἴ τις κα* | (NWG 2) | | | | | | ± | + | + |
| 23 | *-ων* | (NEG 1) | | | | + | + | + | | |
| 24 | *ἴα* | (NEG 2) | | | | + | + | + | | |
| 25 | *-εσσι* | (NEG 4) | | | | + | + | + | (±) | ±) |

innovations we have discussed above which can be of importance for early dialectology.

From this list we see that eleven groupings of dialects emerge which I here list in descending order of number of dialects affected.

TABLE 4

| | Dialects | Features |
|---|---|---|
| 1) | AI Ar C L T B | 19 (?) -μεν, 21 -αν for -ν |
| 2) | AI Ar C L T | 7a ὅτ', 16 οἱ, 19 (?) -μεν |
| 3) | AI Ar C L | 1 -si, 2 πρός, 4b -ai, 8 βολ-<br>9 -su, 10 ἱερός, 11 εἴκοσι (?) |
| 4) | L T B D N | 7b -"when" -a |
| 5) | AI Ar D N | 14—:R, 15—*$k^w$e > te |
| 6) | AI Ar C | 3 (?)—/ss/ > /s/, 4a—infin, -en |
| 7) | AI Ar | 3 (?)—/ss/ > /s/, 5—ai > ei, 6a ἄν |
| 8) | AI L | 12 -κόσιοι, 13 -οισι |
| 9) | B D N | 6b, 17, 18 -/e/ > -/a/, 22 αἴ τις κα |
| 10) | L T B | 23 -ων, 24 ἴα, 25 -εσσι |
| 11) | D N | 20 -σέω, 22 αἴ τις κα |

The question then of course is: in what chronological order did these groupings arise? i.e., in what order do we list the innovations which caused the originally uniform PG to fragment into local dialects? As I have implied earlier, there is no need to assume any chronological order, for isoglosses developing at the same time can have different strengths and can spread to wider or narrower areas. Or again, some may have developed earlier but been weaker, while other later ones, because stronger, can have spread further such that we tend to think of them as earlier. It is at least theoretically possible that the groupings we have established are in fact illusory, and that all isoglosses developed at the same time. This would be akin to holding that the Greek world fragmented suddenly into many different unrelated forms of Greek. Such a linguistic event would be highly unusual, though, and, since we repeatedly find bundles of isoglosses and not isoglosses in isolation, we may assume that our groupings do bear some relation to actual historical developments. A few observations are in order. First of all several innovatory areas are mutually exclusive with other innovatory areas: innovations originating in the one do not spread to the other and vice-versa. They split the Greek world without overlapping. We can therefore reduce the number of our groups to eight by considering

mutually exclusive innovatory areas as being negatively characterized vis à vis one another: if AI ArC innovates in areas not adopted by DN, and DN innovates in areas not adopted by AI ArC, we may consider AI ArC positively characterized, while DN is negatively characterized in these features, whether or not DN has in fact innovated. Table 5 shows the mutually exclusive dialectal areas: DN innovations are listed on the right.

TABLE 5

| Dialects | | | | | | | | Features |
|---|---|---|---|---|---|---|---|---|
| AI | Ar | C | L | T | B | D | N | 20, 22 |
| AI | Ar | C | L | T | B | D | N | 6b, 17, 18, 22 |
| AI | Ar | C | L | T | B | D | N | None |
| AI | Ar | C | L | T | B | D | N | 7b |
| AI | Ar | C | L | T | B | D | N | None |
| AI | Ar | C | L | T | B | D | N | None |
| AI | Ar | C | L | T | B | D | N | 15 |
| AI | Ar | C | L | T | B | D | N | None |

Secondly AI is now each time in the innovating area save for 6b 7b 17 18 (-/e/ > -/a/); 20 -σέω 22 αἴ τις κα; the low-class NEG features 23 24 25. Thirdly, the only innovations to reach DN were 6b 7b 17 18 (-/e/ > -/a/); 20 -σέω 22 αἴ τις κα, all of which originated there; 14 (:R) 15 (*$k^{w}e$ > *te*), both of which changes are late and in fact belong to MG: in the early days at least—prior presumably to the "Dorian invasion"—DN was unaffected by G linguistic progress. B was part of the innovating area of Greece in the earliest periods of G linguistic history, but later was overcome by the same morphological conservatism that characterized DN. Phonologically it went with DN until MG when it remained out of the mainstream, at least as regards developments involving the labio-velars. For much of its history B was a NWG dialect with certain NEG features inherited from earlier times. Finally, the NEG characteristics which I have labeled as low class, and which are not restricted totally to NEG, occurring as they do in D N and Homer, could have arisen literally among less prestigious speakers

of the language at any time.[43] In most areas more prestigious and one imagines more conservative and linguistically conscious speakers influenced their less fortunately situated fellows to give up their barbarous solecisms, but in NE, for whatever reason, such usages prevailed. It is in fact my belief that NEG characteristics 23 24 25 are among the earliest to have arisen on Greek soil, and that they arose among the lower classes already in PG times. We may put these changes first in our chronological list.

Arranging other bundles of isoglosses chronologically will be more difficult, but it is at least clear that changes affecting AI Ar must be no earlier than those affecting Ai ArC, and that changes involving AI Ar DN must be later than those affecting AI Ar alone. Hence the relative chronology:

1) AI ArC
2) AI Ar
3) AI Ar DN

Changes affecting AI L (12 *-κόσιοι* 13 *-οισι*) can be no earlier than those affecting AI ArC L, and could be quite late indeed: I feel that they are contemporary with or later than 2) and 3), and can, perhaps arbitrarily, be placed as 4) in this list. It is possible that changes affecting AI ArC are earlier than those affecting AI ArC L, for otherwise we might find it difficult to explain a) why L failed to innovate with AI ArC in adopting the athematic infinitive *-(e)n*, and b) why it did share with T B DN the lowering of the final vowel in 'when.' Nevertheless this assumption is not necessary because not all innovations spread so as to embrace an entire area, and it is perhaps best to conflate these two groups chronologically and dub them AI ArC (L). By the

[43] In the text I have not labeled *ἴα* for *μία* a low-class feature, though it may have been. When we recall that -/eo/- > -/io/- in NEG dialects, and that in them (morphophonemic) //e// and //i// both appeared as (phonemic) /i/ before back vowels, we realize that *ἴα* can have been understood in NEG as //ea// or even //eya//. This form may then have appeared to be the more regular feminine of **hens *hen*, i.e., **hens *(h)eya *hen*, as if displaying a paradigm like **he:dens *he:deia *he:den*. Surely, too, *oudens oudemia ouden* helped out in this development: they were analyzed as //oudem// plus -//s// or -//ia// on the model of **talans *talania* (> **talanya*) **talan*, etc., and *oudeia* arose. Given *oudeia* and the morphophonemic equivalence of //eya// and //iya//, *ia* 'one' was a likely development. It was again a simplification of an irregular paradigm, and if we can regard such simplifications as low class features, it, too, was a low class feature.

same tokens we will in the NG sphere combine L T B DN (7b) and B D N in the single group (L T) B DN. This move makes good phonological sense, for now all cases of -/e/ > -/a/ are made contemporary: only the area affected varies. By much the same reasoning we can combine our first two groups by labeling them AI ArC L T (B) and ([L T] B) D N respectively: there seems no reason to assume that changes embracing B are any earlier than those not embracing B, though such of course can be done.[44] We thus end up with the following chronology of changes:

1) NEG
2) AI ArC L T (B) ([L T] B) D N
3) AI ArC (L)
4) AI Ar
5) AI Ar D N
6) AI L

Contemporary also with 3) are those changes which, without spreading beyond SWG, affected all of SWG (see above pages 584–90; and contemporary with or later than 6) are changes affecting only AI (above, n. 19), 5) can be equated roughly with MG (see above, pages 607–13).

We can now give an approximate picture of how dialectal diversity arose in the Greek world. In the earliest stages of the language a dialectally uniform PG was spoken over whatever the geographical extent of the G world was at that time. There were, however, within this geographically homogeneous linguistic area, certain dialectal levels definable in terms of levels of society. The upper classes spoke 'pure', i.e. inherited, Greek, while certain of the lower classes—perhaps originally non-Greek speakers who had recently learned Greek—introduced simplifications of the grammar such as those listed as numbers 23–25 in Table 3. The lower levels of society also did not, because it was not necessary, adopt the upper class manner of designating a man's parentage either by a patronymic noun or by the genitive of the father's name, but continued to use the older possessive adjective (Buck 134–135), derived either from the father's name or from some outstanding characteristic (cf. *Τελαμώνιος Αἴας* and Aitchison *Glotta*

[44] As I shall do exempli gratia in the appendix.

42 [1964] 132–38). Whether they had already in the more homely words (cf. [hy:s] vs. [mu:s]; see above page 561) begun to confuse the old labio-velars with labials save before /i/ I do not know, though it is entirely possible: if so, then enclitic -τε in those dialects is a borrowing from the speech of the more prestigious members of the community. All the features just mentioned continued in low-class speech, but failed to make any (save sporadic) inroads in the speech of the upper classes.

The G community was at this time still dialectally one in a geographical, though not in a social sense. The first geographical divisions began to arise when a number of morphological innovations began in the southern part of the G world, innovations which penetrated more or less deeply into the more northerly areas. Such changes included replacing the first person plural morpheme -μες with -μεν (#19), extending the third person plural athematic ending ἔϑεν to ἔϑε(σ)αν (#21), replacing inherited *toi* with *hoi* in the nominative plural of the demonstrative pronoun (#16), and reanalyzing **hoke* < **hokʷe* as **hokʷe*, thus leading to its passage to ὅτ' (#7). It is possible, though we have concluded otherwise above (614), that at this same time **ai kʷis ke(n)* was switched in the south to **ai ken kʷis*, thus facilitating the later reanalysis of αἰκεν as εἰ(κ)αν. These changes embraced all of the southern area of PG, and in the north affected those areas which later generated T L; but B, for whatever reason, though adopting 19 (?) and 21, retained **toi* and the older (?) **ai kʷis ke(n)*, at least in part. These latter two changes may have been later than the first two—and B now in the NWG sphere—but it is perhaps still more likely that they were weaker in force and failed to appeal to the yeomen of Boeotia. Those Greeks resident still farther to the NW of the Greek world were highly conservative linguistically, were not affected by the newer developments in the south, and were proud to retain the older system intact. Their sole effort at morphological innovation—if such it was—was their creation of that type of future tense known later as the "Doric future" (#20). Phonologically, though, they were content to allow final -/e/ to be lowered to -/a/ in adverbial words, a lapse in which they were always joined by the Boeotians, and by the Thessalians and Lesbians in the word for "when." These are the only innovations attributable to a NG dialect: from the earliest days on linguistic innovation was restricted to the south. No new innovations

arose in B T D N, nor did these areas adopt any of the innovations that subsequently arose in the south, not, that is to say, till MG came into being.

At this point, then, though still a single linguistic community, Greece did possess some slight dialectal differences definable in geographical terms. There were in fact two dialects, innovating SG (= AI ArC) and conservative NG (T B L DN). In the north there were further differences, but again they probably were for the most part of a social and not of a geographical sort. The old aristocracy spoke conservative NWG (= DN), while the peasants spoke a less pure variety of the same which contained an admixture of SG features (= NEG). There was no "Doric" or "Aeolic:" just upper class and lower class NG.

The distinction between conservative NG and innovative SG became greater as SG, with or without L, continued to innovate linguistically while NG remained static and unaffected by newer developments. It is possible, as I have said, that those innovations which affected ArC AI but not L are earlier than those affecting SG plus L. Such an assumption is, though, unnecessary: the phonological and morphological structure of L may have been sufficiently different that not all SG changes could easily catch on there. While all the SG developments which had such a profound and lasting effect on the linguistic atlas of ancient Greece, probably originating in SEG, were spreading to all SG (including L), SWG was innovating also, but innovations in this area—again generally of a careless nature like the NEG characteristics—failed to catch on and spread to SEG. These SWG changes, however, certainly did not cause any difficulty in communication between speakers of SWG and SEG at this time, nor did they render it impossible for (e.g.) εἴκοσι to develop over the whole area even though SWG said **k$^{w}$etortos* and SEG said **k$^{w}$etratos*. The only differences at this time were distinctly minor, affected pronunciation for the most part, and did not prevent common innovation.

At some point, later than the developments affecting AI ArC L, C became linguistically isolated from the remainder of the SG world, and continued to develop—in so far as it did develop—independently of the rest of the G world. During this period AI Ar reanalyzed **aiken* as **eikan* and developed εἰ(κ) ἄν (#5 6), and possibly also simplified

* *-ss-* to * *-s-*, though it is of course perhaps equally likely that the change affected C as well: in the absence of reliable early spellings from Cyprus we cannot be sure, though it is my guess that C preserved * *-ss-*. It almost certainly retained -RR-.

The last stage of G dialectal prehistory, that stage which gave most of the local dialects their distinctive character during the classical period, involves changes that are in general common to AI DN and sometimes B, changes which involved */mm/ > /:m/ (14) and */$k^w$/ > /t/ /—/e/ (15), that is, the final elimination of the labiovelars. In dialectological terms this meant that NWG had joined the innovating area of Greek and in so doing had replaced SWG (by itself becoming SWG) and excluded NEG. I have labeled the changes involving this dialectal entity MG changes. They spread to other areas of Greece, but not always in the same intensity, and indeed did not always affect even all NWG dialects. We are not to think of all such changes either as sudden or as contemporary. It is for instance likely, since they embraced Ar, that 14 and 15 are earlier than many of the changes listed above in connection with the establishing of MG. Later changes affected limited areas, e.g., AI L, AI alone, Lac. alone, and fall either on the very threshold of the classical period or within it, and hence lie outside the scope of this investigation which is concerned only with dialectal prehistory.

We have, then, to recognize the following stages of G dialectal prehistory: 1) PG, with its upper and lower class levels; 2) late PG, in which certain SG innovations affected some of NG; 3) SG (± L ± C) in which changes affected only the south, sometimes reaching C but not L, sometimes L but not C; 4) MG; 5) Classical Greek. At no point in the early prehistory of G are we enabled better to understand developments by resorting to the family tree model of linguistic change together with its concepts such as Dorian, Aeolic, AI and ArC. Indeed we never can refer to Ae as a whole, and have instead always to think of L T B as separate entities, L a low-class PG dialect which later moved into the innovating sphere of G; T a low-class PG dialect which remained out of touch with the rest of the G world from the very earliest times; B, a low-class PG dialect which affected the conservatism characteristic of NWG. We can speak only of those dialects which continued NEG (low-class PG) characteristics throughout their

history. Doric can be characterized negatively as that dialect which preserved upper-class PG characteristics nearly intact. The SG dialects can easily be characterized positively, but they were for much of their history identical or nearly so, as Risch correctly saw: SWG changes were for the most part minor. It is only when those changes associated with MG took place that we begin to be able to discern major dialectal lines developing, and it is further very late changes (like AI $\bar{\alpha} > \eta$) which finally enable us to speak of DN AI ArC. In earlier times we can speak only of linguistic tendencies—generally SEG tendencies—which penetrated to a greater or a lesser degree into other areas of the G world. The family tree, visible at the end of G dialectal prehistory, developed at the end of G dialectal history: it grew, and has flourished, for 2500 years, nourished by the waves of linguistic change. It is time that these waves sweep it away.

## APPENDIX

In the text I have tried, with I fear a few lapses, to keep my investigation solely linguistic and to refrain from any historical and geographical speculation. And yet to remain so doctrinally pure is neither entirely realistic nor entirely honest, for surely at least one of the reasons for our interest in Greek dialectology is our desire to gain information as to the prehistorical location and movements of the Greek people. In this appendix I will no longer require that linguistic data be put only to linguistic uses, and will allow isoglosses and bundles of isoglosses to define the location and movements of peoples. It is to be remembered, though, that such use of the data is not given by the data, and that any historical conclusions we may choose to draw are suspect and are far from having the same authority as do the data themselves.

The schematic maps I have been using in early sections of this paper mapped relations but not scale. It is a highly reasonable assumption that the Greek world was originally quite small, and that it expanded from the PG area to approximately its classical size by the time of changes associated with Mainstream Greek. I shall in fact assume that the PG world was restricted to Thessaly, though it may not have embraced all of Thessaly: it was apparently some time before speakers of the earliest form of Greek were able to turn the pass at Thermopylae and settle Boeotia and southern Greece. At this time they may all have been settled, at various distances from Larisa, in the plains aroud Larisa. It was in that area and at that time that NEG features (23 *-ων* 24 *ἴα* 25 *-εσσι*) arose, but caught on, as I have

supposed, only among the peasantry. At roughly the same time certain other changes (19 *-μεν* ? 21 *-αν* for *-ν*) spread through the entire G world, even among the upper classes, save that they failed to reach DN (though they did reach B) which may (Herod. 1.56) have been located at this time in Hestiaeotis. Other changes (7a *ὅτ'* 16 *-οἱ* for *τοι*) were not so powerful or well received, and failed to reach both DN and B which may (Thuc. 1.12) still have been spoken in the vicinity of Arne in Thessaliotis. I presume that L was at this time undifferentiated from T, and that undifferentiated SG (Arc AI), identical with T and L save that it had not adopted low-class NEG features, was spoken in Pelasgiotis, perhaps on the shores of the gulf of Pagasae. All the changes I have mentioned took place within PG in Thessaly: they are stages 1) and 2) of page 627 above; they will be displayed on maps 3–5 below.[45]

The next group of changes, those associated with 3) of page 627, may have taken some time to run their course. There are two chronological layers to be considered: that in which L innovates with NG and not with SG; and that in which L innovates with SG and not with NG. It will, I think, seem most natural to suppose that SG—perhaps by dint of over-population—moved away from Thessaly and established colonies elsewhere in the south of Greece, perhaps in Attica, perhaps in Attica and portions of the Peloponnese, as well as perhaps in Boeotia: they may have traveled by sea. We cannot know very much of a detailed nature concerning this movement, but since it covered so wide an area of territory with presumably so small a number of people, it must have taken some time. In any event during the earlier portion of this period change 4a (infinitive *-en*) took place in SG and possibly change 3 (/ss/ > /s/), while change 7b (-/e/ > -/a/ in "when") took place in all of NG. Either at the same time, or slightly later when L had left Thessaly, changes 6b 17 18 (-/e/ > -/a/) 22 (**ai k"is ka*) took place and affected DN and B, but not T or L.

Subsequently L, for long highly conservative, and in fact identical with T, joined innovating SG. This switch of allegiance requires—since we are trying to account both for linguistic developments and historical movements of peoples—two population shifts: L must have crossed the water from Thessaly to Asia Minor, and I must have crossed to Asia Minor from Attica.[46]

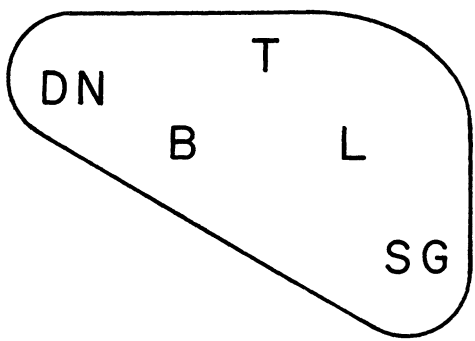
[45] There is nothing preventing us on dialectological grounds from placing 14 (RR > :R) and 15 (**k"e* > *pe*) at this time, and assuming merely that they failed to reach Larisa and vicinity. We are, though, prevented by the evidence of Mycenaean from positing 15 at this early date, and by instances of RR due to the "Aeolic Substrate" elsewhere in Greece from assigning 14 to this period. We would also and in any event prefer that L T (and with 15 B) be more definitely separated from the rest of MG.

[46] At the same time—or perhaps slightly later (cf. Herod. 1.56 and Thuc. 1.12)—B moved into Boeotia and DN into Doris. It might be best to assume that these move-

In other words the "Ionian Migration," traditionally associated with the "Dorian Invasion," must have taken place a good deal earlier. The movements of these peoples out of Thessaly doubtless did not mean—though it could theoretically have meant—an end to communication with Thessaly, but it did mean that no further linguistic innovations spread to Thessaly. During this long period of SG unity changes 1 (**ti* > *si*) 2 (*πρός*) 4b (*-ai* in infinitive) 8 (*βολ-*) 9 (**tu* > *su*) 10 (*ἱερός*) 11 (*εἴκοσι*) took place. We must assume a homogeneous culture—perhaps of a ruling class—spread thinly over rather large areas of land. Towards the end of this same period C, which had been colonized earlier, became cut off linguistically from the mainland and failed to share in changes 3? (/ss/ > /s/) 5 (*ai* > *ei*) 6a (*ἄν*). Because of the evidence of Mycenaean we must date all these changes prior to 1200.

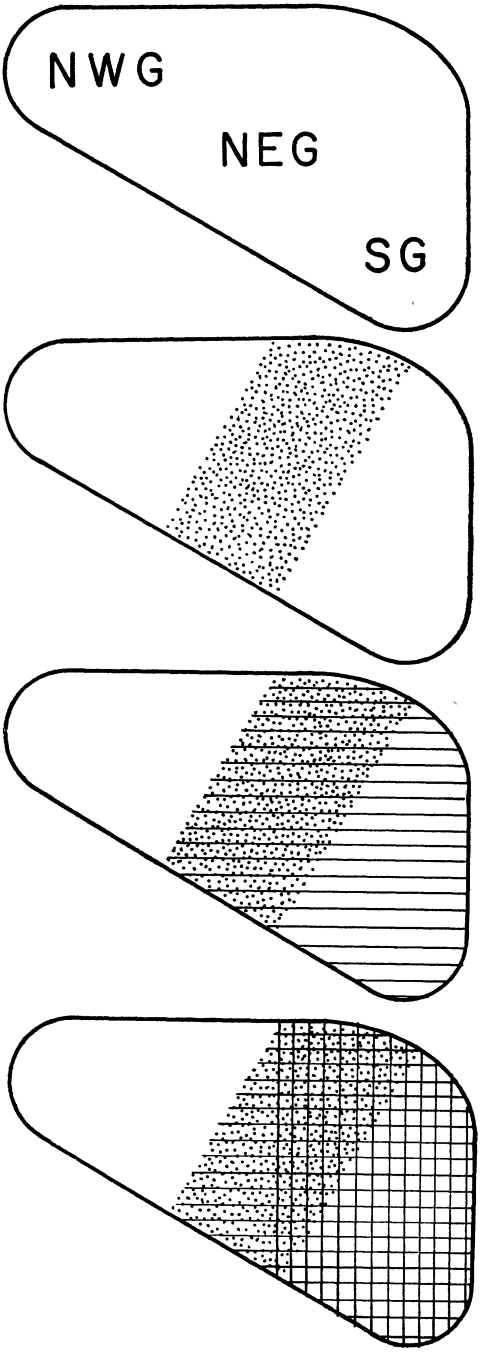
The final movement of peoples is of course that known as the "Dorian Invasion" which accounts for Dorian presence in the Peloponnese, the islands, and Asia Minor. Clearly this movement can have taken place no earlier than the fall of Pylos and Mycenae: it need not and probably does not account for their fall.

There is no need to place on a map changes affecting stages 3 and following above, but it may be well to have maps of stages 1 and 2, maps that will schematically show PG Thessaly and the changes that caused a dialectally uniform PG to split into dialectally differentiated PG. Map 1 shows undifferentiated PG with the later dialectal designations superimposed upon it in




the positions I have supposed above. Map 2, though still over-articulated, gives a better representation of the same PG unity. Map 3 shows how the first changes (23 24 25) arose and spread, causing a first split in the original

ments were later and that 6b 17 18, set in motion by 7b, reached completion (together with 22) in the area around the gulf of Malis.


NWG
NEG
SG

unity.[47] The fourth map shows the areas affected both by 23 24 25 and by 19 and 21 which leave NWG isolated. At approximately the same time other changes, 7a 16, overspread much of the same area, but failed to reach B: this is map 5.

These were the only changes that took place in Thessaly while SG was still resident there. All other changes have been displayed on maps included earlier in the text.

[47] Now that we put the NEG changes on an actual representation of a map of Greece it becomes possible to regard them as local rather than social dialectal innovations: they will have been changes which affected Central PG which reached but did not change SG. Perhaps therefore I have been unjust in characterizing them as low class.